



2020

July 2020–June 2021

Annual Report



IGES Institute for Global
Environmental Strategies



Contents

Foreword	1
Outline of IGES	3
Research Highlights in FY2020	4
<Issue Research Areas>	
Climate and Energy Area	6
Natural Resources and Ecosystem Services Area	8
Sustainable Consumption and Production Area	14
<Functional Centres>	
Strategic and Quantitative Analysis Centre	20
Sustainability Governance Centre	24
<Stakeholder Taskforces>	
City Taskforce	26
Finance Taskforce	28
Business Taskforce	30

Research Activity Facilities & Units	32
Activities at IGES Satellite Offices	32
Activities at Other Facilities	40
Strategic Management Office (SMO)	46
Appendix	51
Financial Statements	52
About IGES	54

Foreword

The Institute for Global Environmental Strategies (IGES) was established under an initiative of the Japanese government in 1998 with the support of Kanagawa Prefecture. Since 2012, IGES has been conducting practical policy research as a public interest incorporated foundation, aiming to realise sustainable development in the Asia-Pacific region.

This annual report highlights the IGES business year from July 2020 to June 2021 which is also the final year of IGES's 7th Phase Integrative Strategic Research Programme (ISRP7), launched in July 2017. Under the ISRP7, IGES has carried out a wide range of research activities spanning such global issues as climate change mitigation and adaptation, the creation of a sound material-cycle society and circular economy, and conservation of biodiversity, and developed effective policy recommendations. IGES has continued to provide support to international programmes such as the Intergovernmental Panel on Climate Change (IPCC), Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and others, and strengthened collaboration with key UN agencies and international organisations, such as the United Nations Environment Programme (UNEP), United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), United Nations Department of Economic and Social Affairs (UNDESA), Asian Development Bank (ADB), Food and Agriculture Organization of the United Nations (FAO), United Nations University (UNU) and others.

The world is still in the grip of the COVID-19 pandemic, and there have been profound impacts on our socio-economic systems. However, as we explore ways to recover from this pandemic, we are seeing growing momentum for movements like "green recovery", which incorporates both environmental and economic measures, to create a better society. The Fifth Basic Environment Plan, which constitutes the foundation of Japan's environmental policies, also advocates the creation of the "Regional Circulating and Ecological Sphere (Regional CES)" to realise the transition to a decarbonised society, a resource circulating society, and a society in harmony with nature. To accelerate these movements towards redesigning society and promoting the sound transformation to a sustainable and resilient society in harmony with nature, we must take integrated approaches to complex and interrelated environmental, economic and social issues, and solve these issues simultaneously.

IGES launched its 8th Phase Integrative Strategic Research Programme (ISRP8) in July 2021. We will further strengthen solution-oriented research activities with an emphasis on cross-cutting, integrated approaches, having newly established the Integrated Sustainability Centre (ISC) at Hayama headquarters. We will also further deepen the co-production of knowledge in collaboration with various stakeholders. IGES, as a leading think tank in the Asia-Pacific on environment and sustainability, is determined to fulfil its role as a "change agent" guiding the transformation toward a sustainable society.

Going forward, I would like to request your continued understanding and support of IGES's research activities.



TAKEUCHI, Kazuhiko
President, IGES

IGES, in its 7th Phase Integrative Strategic Research Programme (ISRP7, FY2017–FY2020), engaged in research activities under three issue areas of Climate and Energy, Natural Resources and Ecosystem Services, and Sustainable Consumption and Production, with its two functional centres for Strategic and Quantitative Analysis and Sustainability Governance, and three stakeholder taskforces on City, Finance and Business. The institute also has satellite offices in Tokyo, Kansai, Kitakyushu, Bangkok and Beijing to promote a range of activities with its key partners based in these cities. Under the ISRP7, IGES has put particular focus on cross-cutting research to effectively implement the Paris Agreement and Sustainable Development Goals (SDGs), which are two important international trends for global environmental issues. The institute has also actively promoted collaboration with a diverse set of stakeholders, including national and local governments, businesses, international organisations, research institutes and NGOs.

In FY2020, the final year of the ISRP7, IGES worked steadily to achieve the intended results in all its research activities. Concurrently, the institute engaged in dynamic outreach activities, aiming to deliver research results through outreach to generate impacts on domestic and international debates as well as policy formulation processes. In response to the growing debate on how to recover from the COVID-19 pandemic, while balancing environmental and economic measures, IGES developed an integrated policy approach called the “Triple R” Framework*, which links recovery to the realisation of a sustainable society, and has made strenuous efforts to put forward policy recommendations in major policymaking processes in Japan and overseas. Moreover, as the movement to realise decarbonised societies by 2050 gained momentum, IGES encouraged wider discussions by diverse stakeholders through the active dissemination of information, including publishing timely commentaries and reports analysing the latest trends, and launching a new series of climate change webinars, providing easy-to-understand interpretations of various themes related to decarbonised societies.

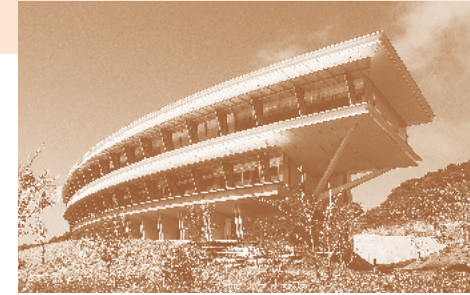
As the world approaches a major turning point in the transformation towards a sustainable society, IGES has re-examined its research structure and launched the 8th Phase Integrative Strategic Research Programme (ISRP8) from FY2021. We will continue to promote practical research with an eye on global trends, and be proactive in delivering messages encouraging the transformation to a sustainable society.

* “Triple R” (Response, Recovery, Redesign) Framework: A three-component framework that paves the way for a sustainable, resilient and inclusive society after COVID-19, advocating for the integration of Redesign (long-term: transformation of socio-economic systems to accelerate just transitions) principles to create policies for COVID-19 Response (short-term: targeted interventions to address immediate impacts) and Recovery (mid-term: policy reforms and allocation of stimulus funding to change the orientation of development).



TAKAHASHI, Yasuo
Executive Director, IGES

Outline of IGES



Mission of IGES

The Asia-Pacific region has seen rapid economic development and an accompanying intensification of environmental problems. In light of this, achieving a balance between environmental and developmental goals is a pressing issue, and the mapping of paths to sustainable societies that operate in harmony with nature is required. While maintaining cooperative relationships with a wide array of stakeholders including national and local governments, international organisations, universities, research institutes, businesses and NGOs, IGES intends to form strategies to achieve sustainable societies and to contribute to policy formulation based on the needs of the Asia-Pacific region.

Research Activities

FY2020 was the final year of the 7th Phase Integrative Strategic Research Programme (July 2017–June 2021), and hinged upon the coordination of the Strategic Management Office, IGES continued to engage in policy research for problem-solving in the three issue areas of Climate and Energy, Natural Resources and Ecosystem Services, and Sustainable Consumption and Production, with its two functional centres for Strategic and Quantitative Analysis and Sustainability Governance, three stakeholder taskforces on City, Finance and Business, as well as at its domestic and overseas satellite offices.

FY2020 Organisational Chart



Research Highlights in FY2020

July 2020-June 2021

In close collaboration with diverse stakeholders, IGES aims to generate “impact” that facilitates the transition towards realising sustainable societies. In its 7th Phase Integrative Strategic Research Programme (ISRP7), we set a target to have 25 successful cases annually. The target was met from FY2017 through FY2020, with 25 (FY2017), 36 (FY2018), 35 (FY2019) and 37 (FY2020) cases. In FY2018, with the purpose of promoting and sharing outstanding impactful cases, IGES President set up the “Mountain View Award”, awarded to the team with the best impact case. In FY2020, six impactful cases listed below were shortlisted as finalists, and “Enhancing the Capacities of ASEAN Governments to Develop and Implement Climate Change Adaptation Policies and Projects” was awarded as the best impact case in FY2020.

Mainstreaming Resource Efficiency and Circular Economy Concepts and Practices in Japan

Having received high evaluation of our expertise and global experiences on the policy process on Circular Economy (CE) and Resource Efficiency, IGES was assigned to serve as secretariat for the first public private partnership on CE (Japan Partnership for Circular Economy: J4CE). IGES has started work on developing an official website and carries out operations such as member management and dissemination of monthly news on CE. In addition, IGES has contributed to providing expertise on CE for the selection and development of noteworthy cases of CE in Japanese companies.

Contributions on Local Actions for Sustainability Transition

Sustainability requires system-wide transformation and local actions. In order to facilitate the transition from the current situation, a simultaneous and coherent approach is needed for relevant sectors, including policy, industry, markets and civil society. “Promoting 100% renewable energy in Hyogo Prefecture, Japan” is a project that has been targeting renewable energy market development in business sector electricity consumption, contributing to the prefecture’s climate change mitigation plan as a key partner institute, by identifying the current situation, barriers, and the role of local government so as to further accelerate the deployment of renewable energy. The “Strategic Youth Empowerment” project aimed to empower high school and university

students through a series of workshops, thereby encouraging youth participation in the processes of transition towards decarbonised society.

Enhancing the Capacities of ASEAN Governments to Develop and Implement Climate Change Adaptation Policies and Projects

The region has put in place far-reaching DRR-CCA plans, laws and regulations at both regional and national levels, and is making progress on localising them. One important element needed to make significant progress is to integrate climate change projections into DRR to help address future risks. With this in mind, the ASEAN DRR-CCA Project, supported by the Government of Japan through

the Japan-ASEAN Integration Fund (JAIF) was jointly implemented by IGES, CTI Engineering International Co., Ltd. (CTII) and the Asian Disaster Reduction Center (ADRC) from October 2018 to February 2021. This project demonstrates the methodological framework that has been adopted, highlighting the preparatory stages for risk assessment. It also works on development of future climate change projection and scenarios, as well as conducting vulnerability and capacity assessments in Lao PDR and Myanmar. The project approached sustainability through its project design with the involvement of all key ministries and institutions throughout the planning and implementation cycle. The final output contributes to regional and global efforts on disaster risk reduction, including two guidelines endorsed by 10 ASEAN countries, contribution to the Global Assessment Report 2022. More details can be found on the project website at <http://aseandrr.org>.

Guiding Policy Directions toward Sustainable Waste Management and Resource Efficiency in Asia and the Pacific through Technical Assistance for Developing National and Sub-national Waste Management Strategies

Waste management is one of the cross-cutting issues affecting the achievement of many targets set in the UN Sustainable Development Goals (SDGs) and the Paris Agreement on Climate Change. However, many developing countries face tremendous challenges in addressing this fast-growing issue, not only due to technical and financial deficiencies but also because countries

do not have a clear vision, and lack the necessary policies, regulations and institutional capacities. In FY2020, IGES Centre Collaborating with UNEP on Environmental Technologies (CCET) supported two countries (Indonesia and Sri Lanka) and three cities (Negombo, Hyderabad and Da Nang) in developing national and sub-national strategies and action plans, enhancing their technical and institutional capacities to manage municipal waste and plastic litter based on the circular economy and 3Rs (reduce, reuse and recycle), aiming to reduce pollution, and mitigate emissions and leakage into the environment, including into waterways, landfills and marine areas.

Supporting Policy Dialogues, Multi-stakeholder Capacity Development and Network Building on Decentralised Wastewater Management towards Achieving SDG6 in ASEAN Member States

IGES worked closely with ASEAN Member States in a 2-year project entitled "Policy Dialogue and Network Building of Multi-stakeholders on Integrated Decentralised Domestic Wastewater Management in ASEAN Countries" (PODiWM) to support ASEAN countries in achieving the relevant targets under SDG 6 on water and sanitation, through effective implementation of an integrated decentralised domestic wastewater management approach. IGES played an important role in facilitating two regional multi-stakeholder policy dialogues held under this project and providing inputs to the Roadmap for Appropriate Domestic Wastewater Management in the ASEAN Region. In addition, in collaboration

with the National Institute for Environmental Studies (NIES), IGES jointly conducted a one-week training programme and delivered a series of lectures to more than 60 ASEAN policymakers and stakeholders on Japan's decentralised wastewater treatment and management practices, good practices and lessons learned to enhance their understanding and technical capacity.

Proactive Approach to the Shaping of Climate and Energy Policies of Japan through a Series of IGES Commentaries and Op-ed Articles

Japan is at a critical juncture in terms of the development of climate and energy policies. Discussion at the UN Climate Summit (September 2019) and COP25 (December 2019) led to criticisms of Japan's climate policy including continued support for the construction of coal-fired power plants (both domestic and for export). In response, Japan's climate and energy policies have undergone major developments from 2020 to the present. During this period, IGES has made a series of recommendations through commentaries and strategic outputs as op-eds. They highlighted the importance of science-based policymaking and concrete policy measures to enable the transition to a decarbonised society. The results of these activities are now being materialised in international commitments and related legislations or plans such as "stop new, unabated international coal power projects," "carbon neutrality by 2050," "46-50% GHG reduction by 2030," and "Model comparison analysis for 2050 at the Sub-Committee of METI".

Research Highlights: Issue Research Areas

Climate and Energy Area

Outline

With particular focus on the Asia-Pacific region, IGES is carrying out initiatives to facilitate the transition to decarbonised societies at the national and local levels. Specifically, the institute looks towards strengthening climate and energy-related strategies and policies, and engages in international climate negotiations, bilateral and multilateral cooperation, carbon pricing initiatives, market-based mechanisms, and the development and maintenance of databases.

Major Activities in FY2020

Operationalisation of the Paris Agreement

IGES contributed to international negotiations on Article 6 of the Paris Agreement by participating in the COP meeting as a member of the Japanese delegation. By utilising the knowledge and expertise gained through the support for international negotiations, IGES conducted a mutual learning programme for enhanced transparency in cooperation with the governments of Asian developing countries, focusing on Article 13 and 6 reporting. In addition, IGES organised regional knowledge-sharing workshops for enhanced transparency in collaboration with major international partners, such as the UNFCCC Secretariat, the

UNFCCC Regional Collaboration Centre (RCC) and the Global Support Programme implemented by the UNEP-DTU. Furthermore, IGES newly established cooperation with the Japan Aerospace Exploration Agency (JAXA) for the advancement of inputs from the Japanese satellite community to the global stocktake (GST). IGES started playing a key role in bridging science and international policy discussions, leading to further exploration in the new phase.

Materialisation of GHG Emission Reductions and Contribution to SDGs through Implementation of the JCM

IGES contributed to implementation of the Joint Crediting Mechanism (JCM) which appropriately evaluates contributions to GHG emission reductions

or removals by Japan, and applies them toward achievement of Japan's emission reduction target. IGES supported the development of 11 MRV (monitoring, reporting and verification) methodologies. In addition, JCM-SDGs linkage guidance was produced to identify and analyse how the JCM projects contribute to achieving the SDGs. Toward further understanding and implementation of the JCM, IGES developed a methodology guidebook for the JCM and organised the JCM annual assembly workshop, inviting all JCM partner countries to ensure better understanding of the corresponding adjustment and Article 6 of the Paris Agreement.

Impacts on Political and Social Debates on Carbon Pricing in Asia

Carbon pricing policy is taking shape in Asia, such as the implementation of national emissions trading schemes in China and the Republic of Korea. IGES served as Japan's focal point for jointly implementing the fifth Forum of Carbon Pricing Mechanisms in Japan, Korea and China, and contributed to discussions on the trilateral cooperation. IGES conducted timely overview and analysis of the design features and implementation progress of emissions trading schemes in China and the Republic of Korea. As a steering committee member, IGES supported an initiative of Asia Society



JCM Global Partnership Meeting

Policy Institute for expanding emissions trading schemes in Asia. A working paper on the latest progress and prospect of China's emissions trading scheme was published, thereby stimulating the mutual learning of policy development.

Climate Policy Development by Visualisation of Current Status

IGES engages in analysis and visualisation of climate policies around the world in order to facilitate the further development of such policies. Particularly for Asia, IGES completed analysis on coal transition management for 2°C/1.5°C goals in China and India, and a comparative study on low-carbon policy in Japan, Korea and China. Domestically, IGES conducted a simulation analysis of power grid system of eastern Japan for the maximum expansion of renewables. IGES contributed to a Japan chapter of Climate Transparency, a Germany-based research network for G20 countries. Likewise, IGES provides the most up-to-date information through regular updating of the IGES Climate Databases on various topics. IGES also in collaboration with the National Center for Climate Change Strategy and International Cooperation (NCSC), contributed to a Low Carbon Development Indicator System.

To communicate national and international trends towards decarbonisation, the IGES Climate Change Webinar Series was launched, with a total of 11 webinars conducted from April to July 2021, watched live by a total of 4,320 people.

Selected Publications

- Policy Brief "Integrating Clean Air, Climate, and Health Policies in the COVID-19 Era: The Role of Co-benefits and the Triple R Framework"
- Book "Renewable Energy Transition in Asia: Policies, Markets and Emerging Issues" (Palgrave Macmillan)
- Working Paper "Co-innovation for Low Carbon Technologies: The Case of Japan-India Collaboration"
- Working Paper "The Latest Progress and Prospect of China's National Emissions Trading Scheme" (in Japanese)
- Working Paper "An Estimation of Renewables Integration in Eastern Japan under the Flow-based Operation of Power Transmission System" (in Japanese)
- Working Paper "Joint Crediting Mechanism and Sustainable Development Goals Linkage Guidance"
- Discussion Paper "CDM Supply Potential for Emission Reductions up to the End of 2020"
- Discussion Paper "Understanding Article 6.2 Reporting with the JCM: Experience from Mutual Learning Program"
- Briefing Note "Understanding the First Global Stocktake under the Paris Agreement" (in Japanese)
- Commentary "Evaluation of Options for Reporting under Article 6.2 of the Paris Agreement"
- Learning Material "JCM Methodology Guidebook"
- Six series articles on "Transformation of China's Climate Change Policy After the Operationalisation of the Paris Agreement" (Bimonthly Magazine "Global Warming" in Japanese)
- A contribution to "Economic Class" of NIKKEI newspaper "Review of China's Industrial Policy (part 2)" (in Japanese)
- Database "Global Database of National GHG Inventory (GHGI) Capacity in Developing Countries"
- IGES Climate Databases
 - "IGES NDC Database"
 - "IGES BUR (Biennial Update Report) Database"
 - "IGES JCM Database"
 - "IGES CDM Project Database"
 - "IGES List of Grid Emission Factors"
 - "IGES Kyoto Units Transfer Database"
 - "IGES Kyoto Units All Transaction Data for the First Commitment Period"
 - "Potential Supply of Pre-2020 CERs"



Climate Change Webinar (top: climate change track / bottom: carbon market track)

Natural Resources and Ecosystem Services Area

Outline

IGES conducts problem-solving research activities on integrated natural resource management to promote the conservation and sustainable use of natural resources in the Asia-Pacific region, focusing on forest conservation, climate change adaptation, water resources management and biodiversity conservation.

Major Activities in FY2020

Contribution to International Biodiversity Processes

IGES staff contributed to authorship of the IPBES¹ sustainable use of wild species assessment report and the IPBES nexus scoping report; translation of the IPBES global assessment; external review of the draft IPBES nexus assessment scoping report; the draft IPBES sustainable use of wild species assessment report; the draft IPBES values assessment report; the draft IPBES transformative change scoping report; the draft planning for future work programmes of IPBES; and peer-reviewed documents for the CBD². Some of these review opportunities provided an opportunity to suggest citing relevant IGES publications. IGES also registered as an observer at key meetings of the CBD and IPBES. In addition, to

help local implementation of the global biodiversity goals, IGES conducted a series of research and capacity building activities on Local Biodiversity Strategies and Action Plans (LBSAPs), including an LBSAP policy brief publication and an online workshop on LBSAP attended by Japanese local governments. An IGES staff member was also included as an expert in the scoping report on the IPBES thematic assessment of interlinkages among biodiversity, water, food and health.

Advisory Function to IPBES TSU

IGES staff continued to serve in an advisory role to the technical support unit (TSU) for the IPBES assessment on invasive alien species and their control. This TSU is hosted by IGES at the Tokyo Sustainability Forum.

Pilot on Participatory Watershed Management

IGES and partners helped local governments in the Philippines develop more resilient land-use and climate change action plans through a scenario analysis and impact assessment process. Impacts of land-use change and climate change on flooding, water quality and habitat quality were assessed using GIS and modelling software. Two training guidebooks were developed (*Participatory*

Watershed Land-Use Management Guidebook, and *Participatory Coastal Land-Use Management Guidebook*), and several training sessions were provided to local governments. Development of an adaptation funding proposal for Green Climate Fund is underway.

Data Collection Survey in Response to Heavy Oil Spill in Mauritius

An IGES staff member was dispatched to Mauritius to respond to a heavy oil spill from the bulk carrier vessel, MV Wakashio, to contribute to a JICA project, as a member of an expert team. The mission was to collect data and survey on the socio-economic (livelihood) situation, coastal ecosystem services



IGES staff interviewing community members in Mauritius following the MV Wakashio oil spill (photo by Koji Miwa)

¹ Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

² Convention on Biological Diversity

and eco-tourism in the affected areas. During the two-month mission, the survey included a number of meetings and consultations with the relevant ministries of Mauritius, UN agencies and local NGOs as well as interviews and questionnaire surveys with local communities.

Establishment of Environmental Conservation Platform of Tonle Sap Lake

IGES has been implementing a 5-year SATREPS project funded by JICA/JST on developing a water environment analytical tool for Tonle Sap Lake in Cambodia, the largest inland water body in Southeast Asia. The research team has been working with the Institute of Technology of Cambodia and relevant partners in both Japan and Cambodia to establish an environmental conservation platform for the conservation of Tonle Sap Lake. They have: (i) established a solid research-oriented structure and

facilities at the Institute of Technology of Cambodia; (ii) encouraged science-based management by the Government of Cambodia; and (iii) enhanced the Tonle Sap Water Environmental Platform (TSWEP) to become an international hub of freshwater ecology and management in Southeast Asia.

Integrated Decentralised Domestic Wastewater Management in ASEAN

IGES has been working closely with all ASEAN Member States to implement a regional initiative to promote policy dialogues and capacity building of multi-stakeholders on integrated decentralised domestic wastewater management in ASEAN countries (2018-2020). A series of capacity-building lectures were presented to more than 60 representatives from all ASEAN countries. This project has facilitated ASEAN Member States in achieving the relevant targets under SDG 6 on

water and sanitation. The project also served as a policy and institutional design development platform for multi-stakeholders on integrated domestic wastewater management, sharing good technological and management practices, as well as appropriate policies for the effective implementation of decentralised wastewater management approach in ASEAN countries. Two ASEAN Regional Policy Dialogues on promoting decentralised wastewater management approach were held, and a regional policy roadmap towards the achievement of integrated domestic wastewater management for ASEAN has been developed and launched.



Field investigation in Tonle Sap Lake under the SATREPS Project



Nonthaburi Septage Treatment Plant in Thailand

Socio-hydrological Perspective of Climate Change Adaptation: Comparative Study in Large Riverine Islands in India, Bangladesh and Viet Nam

Amidst rapid global changes and the unfavourable environmental conditions they induce, communities in isolated riverine islands are affected due to their poor adaptive capacities. Among their main vulnerabilities are their water resources. Using a

socio-hydrological approach, this work explored how the nexus of human–water relations can be applied to improve adaptive measures to maintain hydrological cycles along with managing local water needs. Socio-hydrological models are being used by IGES experts to quantify feedbacks between water resources and communities at multiple scales with the aim of expediting stakeholder participation for the sustainable management of those resources.

Mainstreaming Biodiversity Conservation and Sustainable Management in SEPLS

IGES and partners supported six more projects to demonstrate the value and potential of Socio-ecological Production Landscapes and Seascapes (SEPLS) around the world. The total number of such projects since 2013 has now grown to 48. A new Satoyama Development Mechanism (SDM) website was developed to facilitate interactive information exchange between the project implementers, the SDM Secretariat and a general audience. In addition, the SDM project results were publicised in a variety of ways, including at side-events organised at the High-level Political Forum on Sustainable Development (HLPF) and ISAP2020; and via the Satoyama Initiative Thematic Review vol. 6 on transformative change.

Plausible Alternative Futures of Island Mangroves in the Asia-Pacific Region

IGES and partners have been working on developing scenarios in changing mangrove ecosystem services to promote proactive landscape and seascape planning in India, Japan, Taiwan, the Philippines and Fiji. The results in the form of spatial outputs

are important to operationalise ecosystem-based disaster risk reduction concepts in the study areas.

Responsible Timber Trading

IGES and partners have been working to provide information on the timber production process and regulations to support the implementation of Japan's Clean Wood Act (CWA). Literature reviews, trade analyses and interviews were conducted in Mozambique and Australia. Summaries of the studies were published on the website "Clean Wood Navi" managed by the Japanese Forestry Agency and an online seminar was organised. Additional information is being collected in Indonesia, Malaysia and Viet Nam. Furthermore, IGES and partners have studied compliance of the CWA by timber business entities in Japan by questionnaire and interview studies. IGES also supports the Forestry Agency to manage and improve the "Clean Wood Navi". IGES knowledge and experience accumulated through these projects were recognised, and IGES recently started a 2-year project to analyse timber legality assurance systems and good practices for sustainable timber trade in China, Myanmar and Viet Nam, funded by the International Tropical Timber Organization (ITTO).

New York Declaration on Forests

The New York Declaration on Forests (NYDF) which was adopted at the UN Climate Summit in 2014 is an ambitious global forest goal integrating international agreements, such as the Paris Agreement, the Sustainable Development Goals (SDGs) and the 2020 Strategic Plan for Biodiversity. IGES participates the NYDF Assessment Partners,

an international network of research institutes and NGOs that independently assesses the progress of NYDF targets and contributes to develop the goal assessment reports, translated the report summary for the Japanese audience.

JCM REDD+³

IGES supported the Ministry of the Environment, Japan (MOEJ) by providing advice on a project proponent for a JCM REDD+ project to develop a methodology and project design document.

Regional/Local Circulating and Ecological Sphere (Regional/Local-CES)

IGES and START International Inc. (START) are collaborating to promote the Regional/Local Circulating and Ecological Sphere (Regional/Local-CES) concept in South Asia and Southeast Asia. Together with partners, IGES and START are elaborating the Regional/Local-CES concept through analysis of best practices and proposal of pathways for the creation and operationalisation of regional CES in various contexts. IGES and START jointly organised the first Regional Workshop on Circulating and Ecological Sphere Approach for Re-designing the City Regions Resilient. The workshop engaged participants from nine city regions in South and Southeast Asia and discussed priorities for the region and a decision to establish a Consortium on the CES. IGES also co-organised the second International Symposium on Disaster Resilience and Sustainable Development (DRSD), where IGES and AIT co-convened a technical session on the Circulating and Ecological Sphere, and Ecosystems.

3 Reduction of Emission from Deforestation and forest Degradation, and Conservation, Sustainable Management of Forests and Enhancement of Forest Carbon Stocks

Water Environmental Management in Asia

As secretariat for the Water Environment Partnership in Asia (WEPA), IGES has been contributing to the improvement of the water environment in Asian countries for over a decade. In FY2020, the WEPA annual meeting was conducted as a video conference with the participation of government officials from 13 countries. In addition, IGES supported WEPA Action Programs in Indonesia, Cambodia and Myanmar, in order to promote concrete actions for improving water governance in each country.

Supporting a Reform Process of AEON Foundation's Grant Program

AEON Foundation requested IGES to provide professional support for a reform process of their Grant Program in the conservation sector. The total amount of the annual grant is approximately JPY 100 million. During fiscal year 2020, IGES reviewed current practices of the grant programme, identified issues and challenges that needed to be addressed, and then proposed a list of activities to be considered under the reform process.

International Symposium on Climate Action and Disaster Risk Reduction

In recent years, the severity of climate-related disasters has intensified across the world, and great damage has been caused by typhoons and heavy rainfall in Japan. Climate change is predicted to exacerbate disaster risk in the future, and so adaptation to climate change by taking measures on disaster prevention and reduction has become a pressing issue. An international symposium on "Climate Action and Disaster Risk Reduction" was organised to consider how synergies between

three major global agendas (the Paris Agreement, the Sendai Framework for Disaster Risk Reduction, and the SDGs) can be strengthened, in the context of intensifying climate-related disasters and current domestic and international climate change adaptation efforts. IGES played a key role as secretariat for the symposium.

The 7th Asia-Pacific Adaptation Network Forum

The Government of Japan has provided ongoing support to the Asia-Pacific Adaptation Network (APAN) since its establishment in 2009, and for the 7th APAN Forum in March 2021. MOEJ was the host for the first time and IGES greatly contributed to the success of the forum.

Sustainable Management of Commons in Socio-ecological Production Landscapes (SEPLs) in Slovenia and Japan

This bilateral research project aims to compare SEPLs in Japan and Slovenia with regards to ecosystem services and commons. Specifically, the project has investigated potential similarities and differences in a bundle of ecosystem services and their associated values, contextualised and localised the concept of new commons, and explored solutions for better governance strategy of SEPLs to sustain ecosystem services and bio-cultural diversity in Slovenia and Japan.

Resilience and Ecosystem Services Assessment of Cultural Landscape in Ethiopia

In the Gurage, a socio-ecological production landscape of Ethiopia, "Jefoure" refers to a traditional grass-covered road with households on either side. This study aims to map and characterise Jefoure

roads to help manage them sustainably. This study generates valuable empirical information regarding a Gurage landscape feature that is not common knowledge, and it can support decision-makers and other conservation initiatives aimed at sustainable management.

Selected Publications

Peer-reviewed Articles

- "Enhancing the Sustainability of Tree Growing by Smallholder Farmers in Remote Areas: An Insight from Madagascar" (International Journal of Agricultural Sustainability)
- "Scenario Based Hydrological Modeling for Designing More Climate Resilient Water Resource Management Measures: A Case of Brahmani River, Odisha, Eastern India" (Sustainability)
- "Bushmeat, Wet Markets, and the Risks of Pandemics: Exploring the Nexus through Systematic Review of Scientific Disclosures" (Environmental Science and Policy)
- "Country Representatives' Perceptions of the Biodiversity Science-Policy Interface" (Conservation)
- "A River Basin Approach for the Coordinated Implementation of Water Related Targets in Sustainable Development Goals (SDGs)" (Water, Climate Change and Sustainability)
- "Adaptation Communication of Indigenous and Local Knowledge: Can Community Radios be Mobilized in the Hindu Kush Himalaya Region?" (Media and Disaster Risk Reduction Advances,

Challenges and Potentials

- “Enhancing Synergies in Nature’s Contributions to People in Socio-ecological Production Landscapes and Seascapes: Lessons Learnt from Ten Site-based Projects in Biodiversity Hotspots” (Sustainability Science)
- “Mapping and Characterizing the Jefoure Roads That Have Cultural Heritage Values in the Gurage Socio-ecological Production Landscape of Ethiopia” (Landscape and Urban Planning)
- “Spatial Characterization of Non-material Values across Multiple Coastal Production Landscapes in the Indian Sundarban Delta” (Sustainability Science)
- “Challenges and Opportunities for Septage Management in the Urban Areas of Indonesia – Case Study in Bandung City” (Journal of Engineering and Technological Sciences)
- “Socio-hydrology: A Key Approach for Adaptation to Water Scarcity and Achieving Human Well-being in Large Riverine Islands” (Progress in Disaster Science)
- “Post-2020 Biodiversity Targets Need to Embrace Climate Change” (Proceedings of the National Academy of Sciences of the United States of America)

Policy Briefs

- “Local Biodiversity Strategies and Action Plans (LBSAPs) to Accelerate Actions for Biodiversity by Local Governments”
- “Toward the Establishment of Sustainable Faecal Sludge Management – Lessons Learned from WEPA Partner Countries and Japan”

- “Applying Sanitation Value Chain Approach towards Appropriate Wastewater and Faecal Sludge Management in Thailand” (IGES & AIT Policy Brief)
- “Biodiversity Challenges and Solutions in Asia and the Pacific”
- “Raising Awareness of the IPBES Regional Assessment for Asia and the Pacific”

Books

- “Fostering Transformative Change for Sustainability in the Context of Socio-Ecological Production Landscapes and Seascapes (SEPLS)” (Springer Nature)
- “Environmental Resilience and Transformation in Times of COVID-19: Climate Change Effects on Environmental Functionality” (Elsevier)
- “Participatory Coastal Land-use Management (PCLM) Guidebook: Participatory Approaches and Geospatial Modeling for Increased Resilience to Climate Change at the Local Level”
- “Participatory Watershed Land-use Management (PWLM) Guidebook: Participatory Approaches and Geospatial Modeling for Increased Resilience to Climate Change at the Watershed Level”
- “Linking Urban Food Systems and Environmental Sustainability for Resilience of Cities” (Springer Nature)
- “Sustainable Solutions for Urban Water Security: Innovative Studies” (Springer Nature)

Issue Brief

- “Addressing the Associated Risks of COVID-19 Infections from Water and Wastewater Services

in Asia through a Decentralised Wastewater Treatment Approach”

Submissions to Policy Process

- “Vietnam National Action Plan on Sustainable Consumption and Production (2021 - 2030)”
- “Development of the National Action Plan on Sustainable Consumption and Production (2021 - 2030) in Vietnam: An Assessment of the Progress in 2016 – 2020”

Non Peer-reviewed Articles

- “EU木材規則に対応した欧州の木材関連事業者の取組”
- “Regional/Local Circulating and Ecological Sphere (Regional/Local-CES) Concept for Advancing Resilient Development in South Asia and Southeast Asia”

Communication Material

- “Safe Water Use on Tonle Sap Lake” (video clip produced by the SATREPS Project in Tonle Sap Lake)

PR, Newsletter or Other

- “IPBES/パンフレット”

Translations of Non-IGES Material

- “適応ギャップ報告書2020 (エグゼクティブ・サマリー)”
- “森林と開発の両立：インフラと採鉱産業の対応、人々の持続可能な生計の促進”

Briefing Note

- “気候適応サミット2021にみる国際的な気候変動適応イニシアティブの動向”

Research Highlights: Issue Research Areas

Sustainable Consumption and Production Area

Outline

IGES conducts policy analysis from the perspective of sustainable consumption and production (SCP) including environmentally-sound waste management in cities, formation of effective recycling systems with a view of Asia as a whole, and improvement in resource productivity. Likewise, IGES makes policy recommendations to stimulate lifestyle changes.

Major Activities in FY2020

New Initiatives under the 10YFP Sustainable Lifestyles and Education Programme

IGES has been working on establishing model cases of SCP through conceptualisation and operationalisation of long-term sustainable living within the limits of one planet.

As the coordination desk of the Sustainable Lifestyles and Education (SLE) Programme of the United Nations' 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns (10YFP), IGES supports eight new projects aiming to facilitate sustainable lifestyles and livelihood at the city and community level (* IGES has supported 24 projects in total since 2016). The achievements and lessons learnt of the 17 preceding

projects were summarised in the publication "Co-Creating Sustainable Ways of Living: 17 Stories of On-the-Ground Innovations" (September 2020). To facilitate sustainable education, IGES coordinated the Global Search for Sustainable Schools in nine countries, showing how schools served as centres for collaboration among local teachers, students and community members in learning and working on sustainable lifestyles and livelihoods. The COVID-19 pandemic had huge impacts on selected projects including Sustainable Schools, but it also gave opportunities to revisit effective approaches for sustainable living. IGES and partners organised a session at ISAP2020 on Collaborative Learning and Co-creation of Sustainable Living to share and discuss efforts in the respective countries and communities, and published a discussion paper "Sustainable Living beyond COVID-19". The achievements of the Sustainable Schools project were highlighted at a side event at the UNESCO World Conference in May 2021.

To examine possible future lifestyles for long-term sustainable living within the limits of one planet, IGES conducted the 1.5-Degree Lifestyles project. It worked with local governments, experts and citizens to create scenarios of future low-carbon and resilient living through citizens' workshops and household experiments in six cities, including

Yokohama and Kyoto. The results will inform new projects in FY2021 including one on Urban Carbon Mapping. Moreover, IGES has developed a few new channels to cooperate with and communicate to a broader range of stakeholders through the publication of children's books on 1.5-degree goal and secondary school lectures.



Community education on sanitation and nutrition in South Africa under the Global Search for Sustainable Schools project

Regional SCP Policy and Research Hub

IGES aims to establish itself as a regional SCP policy and research hub in collaboration with regional stakeholders.

As the leading organisation for research on the theme of “Policy Design and Evaluation for SCP in Asia and the Pacific” (S-16: Environment Research and Technology Development Fund), IGES researchers edited and contributed five papers for the Special Issue on “Sustainable Consumption and Production Patterns: Policy Design and Evaluation” of *Sustainability* and also developed the final project report for S-16.

In January 2021, S-16 project and IGES co-organised a Public Symposium “Securing Sustainable Consumption and Production Patterns after COVID-19”. In May 2021, IGES also co-organised a special session on “Facilitating Transition to Sustainable Lifestyle” at the 15th Asia Pacific Roundtable on Sustainable Consumption and Production (APRSCP).

As a member of the consortium of SWITCH-Asia SCP Facility funded by EU, IGES contributes to the SCP Guideline of Seafood Industry in Viet Nam and Industrial Analysis of SCP in the textile sector in Cambodia.

Contribution to Mainstreaming Circular Economy, Resource Efficiency and the 3Rs

To contribute to putting resource efficiency and circular economy onto the central agenda for emerging economies in the region, IGES engaged in key international processes to support the Japanese government such as G7, G20, Organisation for

Economic Co-operation and Development (OECD) Working Party on Resource Productivity and Waste (WPRPW), UNEP International Resource Panel (IRP), GACERE (Global Alliance Circular Economy and Resource Efficiency), WEF-Ministry of the Environment, Japan (MOEJ) Circular Economy Roundtable, and ASEAN.

To support G20 Implementation Framework on Marine Plastic Litter, IGES continues in its main editorial role for developing the 2nd G20 Report on Actions Against Marine Plastic Litter as well as maintaining the portal site on G20 Actions and Progress on Marine Plastic Litter.

To mainstream marine plastic litter issues in Asia and the Pacific, IGES took a proactive role to develop regional collaborative functions through its involvement in the Regional Knowledge Center of Marine Plastic Debris (RKC-MPD) established at the Economic Research Institute for ASEAN and East Asia (ERIA), Closing the Loop Project of UNESCAP, and as a partner organisation of the Alliance to End Plastic Waste (AEPW).

As a part of an EU-funded project “Rethinking Plastics”, IGES conducted research on “Comparative Analysis of Circular Economy and Green Public Procurement Policy in EU and Japan”.

From 2021, IGES will continue to implement the second phase of a Japan International Cooperation Agency (JICA) project to support Da Nang City in implementing model projects for source separation and the 3Rs.

IGES also has been involved in the Platform for Accelerating the Circular Economy (PACE) under the

World Economic Forum (WEF) together with Japan and has developed a network with WEF and WRI (World Resource Institute) which serves as the host for PACE. IGES has contributed to PACE reports such as the Action Agenda Toward a Circular Economy and Circular Indicators for Governments, and was acknowledged as one of the key contributors. Following discussion on potential collaboration with the PACE secretariat (WRI) and with a recommendation from MOEJ, IGES joined PACE as a knowledge partner, which could lead to increased recognition as a global knowledge think-tank on resource efficiency and circular economy.

IGES was assigned to serve as secretariat for the first public private partnership of CE (Japan Partnership for Circular Economy: J4CE). IGES has started work on developing an official website and carries out operations such as member management and dissemination of monthly news on CE. In addition, IGES has contributed to providing expertise on CE to select and develop noteworthy cases of CE in Japanese companies.



Joint workshop with National Institute on Consumer Education (March 2021)

IGES Centre Collaborating with UNEP on Environmental Technologies (CCET)

Sustainable waste management and resource efficiency are arguably one of the cross-cutting issues affecting many aspects of society, the environment and its economy in Asia and the Pacific. It has also a strong impact on achieving the targets set in the UN Sustainable Development Goals (SDGs) and the Paris Agreement on Climate Change. CCET, in collaboration with UNEP-International Environmental Technology Centre (IETC), has been assisting national and local governments in Asia and the Pacific in developing waste management strategies and action plans, and enhancing technical and institutional capacities for moving from end-of-pipe solutions to integrated resource management.

With the technical support of CCET, two Asian countries (Indonesia and Sri Lanka) and two cities (Hyderabad and Negombo) have already developed national and local action plans on solid waste management with particular focus on plastic waste polluting marine environment. These plans aim to strengthen the enabling environment in improving waste management and have already been endorsed by the respective governments. In FY2020, CCET also expanded its collaboration with other UN entities, and new projects and partnerships have been developed. For example, CCET collaborated with UNESCAP to support four ASEAN cities (Da Nang, Surabaya, Kuala Lumpur and Nakhon Si Thammarat) to develop city plastic action plans targeting marine litter from a land-based approach. CCET with UNEP (Geneva) assisting two African countries (Kenya and Ethiopia) to develop national roadmaps for greening healthcare infrastructure through the

analysis on current medical waste management. CCET is also involved with UNEP (West Asia Office) to assist the government of Iraq in developing a national roadmap for food waste reduction and commercialisation of composting.

CCET also worked to strengthen its partnership with other regional programmes and networks in Asia and the Pacific in addressing the waste management and resource circulation subjects and policy dialogues. With the involvement of the South Asia Co-operative Environment Programme (SACEP) and all eight member countries in the region, the Roadmap for Sustainable Waste Management and Resource Circulation in South Asia, 2019-2030 was developed and officially endorsed by the member countries. CCET has collaborated with the Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT) for efficient and effective dissemination and implementation of activities in those countries. CCET also played a leading role within the IGES team in assisting the government of Myanmar and Cambodia in developing national plastic action plans under the ASEAN activities. In addition, CCET coordinates the implementation of waste management hub activities of the Clean and Climate Air Coalition (CCAC) in Asia and the Pacific.

In collaboration with other academic and development partners, CCET has developed a series of knowledge products, training and capacity building materials targeting policymakers and practitioners. CCET with UNEP-IETC and other international and national partners developed the UN Report on Safe Management of Medical Waste under the COVID-19 Pandemic. CCET with UNESCAP

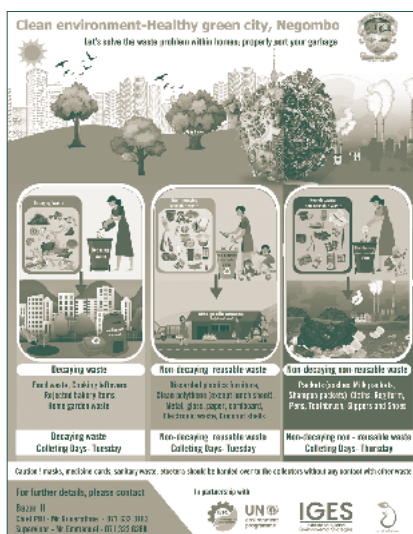
developed urban case studies on plastic waste management in Southeast Asia and an eLearning course on cities and marine plastic pollution. CCET also published a regional report on plastic atlas – Asia edition – with the Heinrich Boell Stiftung Hong Kong Office and the Break Free from Plastic Asia Pacific. In addition, CCET published a series of policy reports on solid waste management in developing countries with the Asian Development Bank Institute (ADBI) and the United States Environmental Protection Agency (USEPA).



Closing the Loop - improving plastic waste recycling in Hyderabad City, India



Women's Groups are active in reducing plastic waste in Da Nang City, Viet Nam




Environmental Education towards Clean, Healthy, Green City, Negombo, Sri Lanka

Selected Publications

- Discussion Paper “Co-creating Sustainable Ways of Living: 17 Stories of On-the-ground Innovations”
- Discussion Paper “Sustainable Living beyond COVID-19: Capabilities, Collaboration, and Collective Action”
- Book “はかつて、へらそうCO₂ 1.5℃大作戦①はかる編” “はかつて、へらそうCO₂ 1.5℃大作戦②へらす編”
- Peer-reviewed Article “Implementation of Accelerated Policy-Driven Sustainability Transitions: Case of Bharat Stage 4 to 6 Leapfrogs in India” (Sustainability)
- Peer-reviewed Article “To See a World in a Grain of Sand—The Transformative Potential of Small Community Actions” (Sustainability)
- Peer-reviewed Article “Applying Foresight to Policy Design for a Long-Term Transition to Sustainable Lifestyles” (Sustainability)
- Peer-reviewed Article “Expansion of Policy Domain of Sustainable Consumption and Production (SCP): Challenges and Opportunities for Policy Design” (Sustainability)
- Peer-reviewed Article “Evaluation of Household Food Waste Generation in Hanoi and Policy Implications towards SDGs Target 12.3” (Sustainability)
- Peer-reviewed Article “Co-designing Workshops on Sustainable Consumption and Production in Southeast Asia: Application of Idea Cards and Structuring Methods” (Sustainability: Science, Practice and Policy)
- Peer-reviewed Article “Integrated Strategies for Household Food Waste Reduction in Bangkok” (Sustainability)
- Peer-reviewed Article “Food Waste in Da Nang City of Vietnam: Trends, Challenges, and Perspectives toward Sustainable Resource Use” (Sustainability)
- Peer-reviewed Article “新型コロナウイルスによる持続可能な消費生産形態の変化と課題ならびに政策展開” (環境経済・政策研究)
- Policy Report “Development of the National Action Plan on Sustainable Consumption and Production (2021–2030) in Vietnam: An Assessment of the Progress in 2016–2020 and Recommendations for 2021–2030 (in English and Vietnamese)”
- Submission to Policy Process “The National Action Plan on Sustainable Consumption and Production (2021–2030) in Vietnam”
- Non peer-reviewed Article “これからの暮らしを共につくっていくこと” (月刊グリーン・パワー)
- Non peer-reviewed Article “脱炭素社会のライフスタイル『みんなで作る1.5℃ライフスタイル』” (消費者教育研究)
- Non peer-reviewed Article “消費と生産のトランジションへ” (グローバルネット)
- Non peer-reviewed Article “廃棄物・リサイクル問題の最新国際動向:SDG12、循環経済、海洋プラスチック問題” (自治体国際化フォーラム)
- Non peer-reviewed Article “EU循環経済(CE) — コロナ後の社会経済の移行を見据えて” (環境管理)
- Non peer-reviewed Article “EU循環経済政策: 化学物質管理との関連性も含めて” (化学物質と環境)
- Conference Proceedings “欧州事例から見る資源効率性・循環経済政策指標の現状と展望” 2020年度環境情報科学研究発表大会(2020) 第17回環境情報科学ポスターセッション一般の部理事長賞受賞
- Policy report “G20 Report on Actions against Marine Plastic Litter: Second Information Sharing based on the G20 Implementation Framework”
- Presentation “Resource Efficiency and Circular Economy in Japan Policies and Practices” (5th European Resource Forum 2020)

CCET

- Submission to Policy Process “eLearning Course on Cities and Marine Plastic Pollution: Building a Circular Economy”
- Submission to Policy Process “Guidelines for Safe Closure and Rehabilitation of Municipal Solid Waste Dumpsites in Sri Lanka” (in English, Sinhala, Tamil)
- Submission to Policy Process “Enhancing Circular Economy Perspectives - Plastic Waste Management Strategy and Action Plan for Greater Hyderabad Municipal Corporation”
- Submission to Policy Process “Waste Management Strategy and Action Plan for Negombo City, Sri Lanka, 2020–2030” (in English, Sinhala, Tamil)
- Submission to Policy Process “Ecology Note – Towards a Clean, Green and Beautiful Bhutan” (in English, Dzongkha)
- Policy Report “Plastic Atlas Asia Edition: Facts and Figures about the World of Synthetic Polymers”
- Policy Report “Digging Through - An Inside Look at Municipal Waste Management in Myanmar”
- Policy Report “Best Practices for Solid Waste Management: A Guide for Decision-Makers in Developing Countries”
- Policy Brief “Solid Waste Management in Developing Asia: Prioritizing Waste Separation”
- Discussion Paper “Plastic Waste in Southeast Asia: Urban Case Studies”
- Working Paper “Challenges and Opportunities of Source-Segregated Waste Collection in Sri Lanka”
- Working Paper “Effective Plastic Waste Management in Sri Lanka”
- Working Paper “Towards Sustainable Operation and Management of Centralized Composting in Sri Lanka”



Research Highlights: Functional Centres

Strategic and Quantitative Analysis Centre

Outline

IGES's Strategic and Quantitative Analysis Centre (QAC) functions as a hub to promote science-policy linkage for achieving sustainable development. It contributes in creating value-added knowledge through strategic research and quantitative policy assessment so as to provide practical policy recommendations, helping informed policymaking and problem-solving in developing countries in Asia and the Pacific and beyond. The Centre looks to support policy assessment at the regional, national and subnational levels by identifying appropriate indicators, and working on filling in the data gaps and data analysis. Work is also done on applying quantitative analysis tools and integrated assessment models to critical topics such as those covered by Sustainable Development Goals (SDGs), including SDG integration and policy coherence, water-energy-food nexus, low-carbon and green economy pathways, green investment and green jobs, climate policy, carbon pricing, trade and the environment in collaboration with key partners.

Major Activities in FY2020

Integrated Policy Making through the Applications of IGES SDG Interlinkages Tool

Supported by IGES Strategic Research Fund, IGES developed the pioneering SDG Interlinkages Tool covering 27 countries in Asia and Africa. New features of V4.0 of the Tool includes options for saving selections and adding new targets. (<https://sdginterlinkages.iges.jp/visualisationtool.html>).

Under a project supported by the Japan Science and Technology Agency (TaSE, Towards a Sustainable Earth), IGES developed an Interactive SDG Tool for River Basins (<https://sdginterlinkages.iges.jp/luanhe/index.html>). Luanhe River Basin, the focus area of the project, is selected for a case study for this tool.

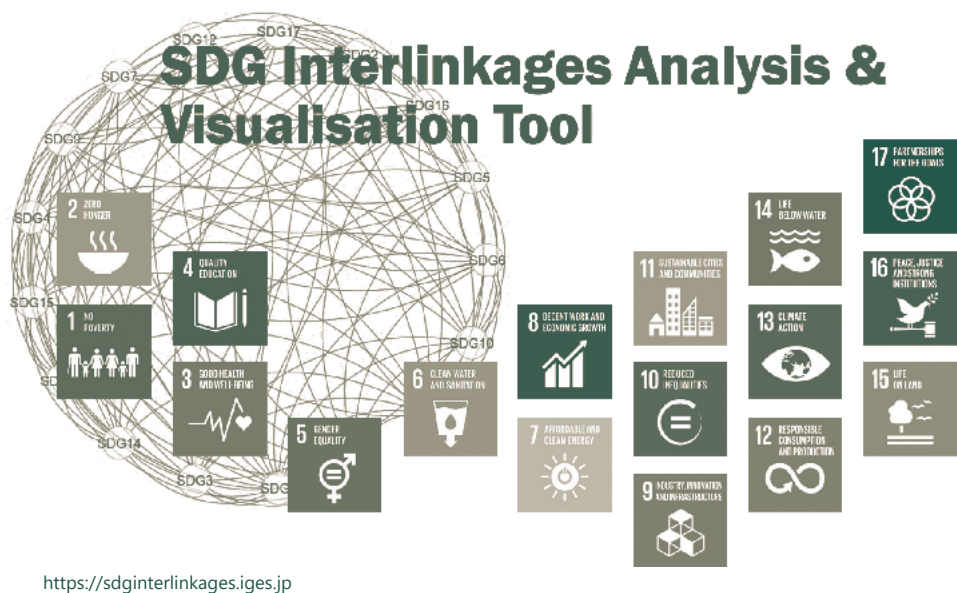
At the international level, United Nations Department of Economic and Social Affairs (UNDESA) included the tool as an example of SDG integration in the 2020 Handbook for Voluntary National Review (VNR), and UN Economic and Social Council (ECOSOC) selected the tool as a good practice for the High Level Political Forum 2020 Exhibition (<https://sustainabledevelopment.un.org/hlpf/2020#exhibit>). The tool was used to support UNDESA's VNR

capacity building on SDG integration into national development planning (2019). In addition, based on the knowledge developed by IGES related to SDG interlinkages analysis, IGES provided important inputs to UN-HABITAT's Global Urban Monitoring Framework development.

Through collaboration with relevant stakeholders at the national, sectoral and sub-national levels, the SDG Interlinkages Tool was applied to support the development of: i) a stakeholders' engagement-based case study on SDG and climate actions integration, planning and priorities in West Java Province of Indonesia; and ii) a major discussion on SDG interlinkages in Indonesia's Voluntary National Review 2021.

Net-zero Emissions Reports and Activities

Based on the research report "A Net-Zero World -2050 Japan-: Insight into essential changes for a sustainable future" published in June 2020, IGES disseminated the vision for achieving net-zero emissions in Japan and the required efforts for its achievement with various stakeholders, namely companies, governmental committees, local government officials, media and citizens. Furthermore, IGES and Kanagawa Prefecture jointly developed a draft Vision for Kanagawa Decarbonisation based on interviews with local



governments in Kanagawa Prefecture. The draft Vision has been submitted to the Prefecture's Environmental Basic Plan Sub-committee.

Efficient operation of power transmission lines is essential to achieve net-zero GHG emissions due to their important role in linking the generation of

renewable energy, such as wind power, from remote areas to electricity demand centres. In cooperation with the Climate and Energy Area, IGES conducted a simulation analysis of Japan's power systems using the PROMOD package developed by ABB, and published the two working papers on power systems analysis in Hokkaido and the East Japan



ISAP2020 session on SDG synergies and trade-offs

Region. The results were shared with stakeholders in the power sector at seminars and then disseminated with a wide audience via the news media.

A draft report was prepared on the challenges and opportunities for achieving a net-zero emissions society in Asia through transformation and green

recovery in selected Asian countries (China and India) and ASEAN (as a region). In November 2020, IGES presented the draft report at a thematic session at the International Forum for Sustainable Asia and the Pacific (ISAP 2020) and opened discussions with leading researchers in China, India and Indonesia on the transformation towards net-zero emissions. Ahead of COP26, IGES is preparing a report that integrates the development of long-term scenarios for energy and land use systems, and carried out analysis of social and institutional issues related to the transition towards a net-zero world in Asia (excluding West Asia).

Development of a Regional Strategy on Climate Mitigation and Adaptation in ASEAN

Under the Japan-ASEAN Integration Fund (JAIF) project on the assessment of the state of climate change in the ASEAN region, IGES prepared an Inception Report which includes the methodology and framework for the development of a regional strategy for climate actions on mitigation and adaptation. A couple of regional meetings were held in 2020 and 2021 convening project partners, including the ASEAN Secretariat, relevant think tanks in ASEAN countries and the national focal points of the ASEAN Working Group on Climate Change (AWGCC). The final report will be submitted to the ASEAN Summit to be held in 2021.

Long-term Scenario Analysis for Cities: Methodology Development and Applications


How climate policies can be integrated into development planning and implementation at the local level is an important research area.

Methodologies for integrating scientific evidence into long-term development planning are urgently needed. An IGES researcher developed socioeconomic pathways on an urban scale by downscaling the global Shared Socioeconomic Pathways (SSPs) developed by the climate change research community. The urban scale SSPs can play a significant role in the development and implementation of sustainable development strategies. An application of the methodology include an on-going case study in Da Nang City, Viet Nam. The SSPs analysis in Da Nang City is being developed under a project on city-to-city collaboration supported by the Ministry of Environment, Japan with collaboration between Da Nang City and Yokohama City. Another application is the SSPs Bhutan which has been developed through the collaboration with the chief urban planner of the Ministry of Works & Human Settlements, Royal Government of Bhutan. In addition, SSPs Built Environment Japan was developed with five future pathways, including indicators particularly developed for the built environment and with a focus on drastic transformation in the post COVID-19 era in Japan.

Selected Publications

- Research Report "A Net-Zero World -2050 Japan-: Insight into Essential Changes for a Sustainable Future"
- UNDESA's commissioned reports on the country studies of SDGs integration into national development planning in Ethiopia, Lao PDR and Tanzania

- Luanhe River Basin Research Brief "Lessons Learnt from Synergies and Trade-offs between SDGs at the Sub-national Scale"
- Peer-reviewed Article "Urban-rural Linkages: Effective Solutions for Achieving Sustainable Development in Ghana from an SDG Interlinkage Perspective" (Sustainability Science)
- Peer-reviewed Article "Urbanization, Carbon Neutrality, and Gross National Happiness: Sustainable Development Pathways for Bhutan" (Cities)
- Peer-reviewed Article "A Future Outlook of Narratives for the Built Environment in Japan" (Sustainability)
- Book Chapter "Impacts and Implications of the COVID-19 Crisis and Its Recovery for Achieving Sustainable Development Goals in Asia: A Review from an SDG Interlinkage Perspective" (In "Environmental Resilience and Transformation in Times of COVID-19", Elsevier)



Research Highlights: Functional Centres

Sustainability Governance Centre

Outline

IGES worked to promote forms of governance that can enable the integration of multiple development objectives into development plans under the SDGs and the Paris Agreement. Some of the work of the Sustainability Governance Centre (SGC) focused chiefly on how national governments, businesses and other actors can collaborate on the SDGs. An additional stream of research explored how cities can govern low-carbon transitions. A third area of study focused on governance that can promote the co-benefits between climate change and other development priorities. In each of these project areas, the SGC provided timely recommendations on the governance reforms required to make links across issues and move down a sustainable low-carbon development path in Asia.

Major Activities in FY2020

Business and the Sustainable Development Goals (SDGs)

In 2020, IGES published a book entitled “SDGsの手法とツールがよくわかる本” that outlines concrete steps for Japanese companies to achieve the SDGs. IGES also continued its collaboration with the Global Compact Network Japan (GCNJ) and launched the most recent results of that cooperation: a new report

that discussed opportunities for progress on the SDGs in Japan in the wake of COVID-19. The report discusses the changes in business and work styles that have occurred due to the pandemic, as well as the basic stance of companies and organisations in dealing with sustainability issues and expected future initiatives.

Enhancing Governance of the SDGs in Japan and Beyond

In 2020, IGES was commissioned by the Ministry of Foreign Affairs, Japan to develop a report comparing how several countries in Europe govern the SDGs. The report also offered some lessons that could be learned in Japan as it seeks to accelerate progress on the SDGs. IGES also developed a paper for the Asian Development Bank Institute that employed a unique metagovernance framework to analyse how countries are governing the SDGs in the COVID-19 era.

Strengthening the Environmental Dimensions of the SDGs

In 2020, IGES joined the Asian Development Bank, the United Nations Environment Programme (UNEP), and the International Institute for Sustainable Development (IISD) in supporting an e-learning class on “Strengthening the Environmental Dimensions of the SDGs”. The class attracted over 600 registered

participants from more than 80 countries, raising awareness of opportunities for using the SDGs to advance a more sustainable future.

Shaping the Regional Agenda on the SDGs

In 2020, IGES developed a set of key messages for the Asia Pacific Forum on Sustainable Development (APFSD). The messages outlined how policymakers in Asia and the Pacific can preserve a harmonious relationship between nature and humanity in the COVID-19 era.

Advancing Co-benefits in Asia

In 2020, IGES worked with researchers from the International Institute for Applied Systems Analysis (IIASA), UNEP, Clean Air Asia, Beijing Normal University, and the Institute for Advanced Sustainability Studies (IASS) to publish a timely policy brief on how co-benefits can integrate air pollution, climate change and health policies in Asia. Follow up work will be conducted in several cities in 2021 to examine the feasibility of implementing the brief’s recommendations. IGES also was selected to participate in a multi-year research project supported by the Ministry of Environment, Japan (Suishinhi) on mitigating short-lived climate forcers in Asia.



Business round table on Integrated Programme for Better Air Quality in Asia (IBAQ)



Expert meeting on short-lived climate pollutants (SLCPs)

Selected Publications

- Book “SDGsの手法とツールがよくわかる本”
- Policy Report “SDGs and Business to Overcome the COVID-19 Pandemic: Actions by Companies and Organisations in Japan” (English and Japanese versions)
- Policy Report “SDGs and Business in the ESG Era: Actions by Companies and Organisations in Japan”
- Submission to Policy Process “持続可能な開発目標 (SDGs) に関する自発的な国家レビューに関する意見”
- Submission to Policy Process: “Implications of COVID-19 for the Environment and Sustainability” (English and Japanese versions)
- Peer-reviewed Article “Sustainable Wastewater Management in Indonesia’s Fish Processing Industry: Bringing Governance into Scenario Analysis” (Journal of Environmental Management)
- Peer-reviewed Article “Understanding School Travel Behavior and the Impact of Awareness Raising to Promote Resilient Public Bus System” (Transport and Communications Bulletin for Asia and the Pacific)
- Policy Brief “Growing Support for Climate-Smart Agriculture by Scaling Up Farmer and Climate Field Schools: Recommended Policy and Institutional Reforms”
- Policy Brief “Leveraging the Sustainable Development Goals to Enhance Environmental Sustainability in Asia and the Pacific”
- Policy Brief “Integrating Clean Air, Climate, and Health Policies in the COVID-19 Era: The Role of Co-benefits and the Triple R Framework”
- Research Report “Innovations for Sustainability Pathways to an Efficient and Sufficient Post-pandemic Future”
- Training Materials “Training Curriculum Integrating Air Pollution and Climate Change Planning in Cities in Asia”
- Submission to Policy Process “IGES Key Messages on Sustainable and Resilient Recovery from the COVID-19 Pandemic in Asia and the Pacific”
- Discussion Paper “A Sustainable COVID-19 Response, Recovery, and Redesign: Principles and Applications of the Triple R Framework”
- Working Paper “Governing the SDGs in the COVID-era: Bringing Back Hierarchic Styles of Governance?” (ADB Working Paper Series)
- Book Chapter “Tracing Sustainability Transitions in Seoul Governance: Enabling and Scaling Grassroots Innovations” (Climate Change Governance in Asia)
- Translation of Non-IGES Material “アジア太平洋 SDG進捗報告書2020”
- Non-peer Reviewed Article “コロナ時代の三つの課題と政策統合” (月刊グリーン・パワー)

City Taskforce

Outline

IGES co-creates solutions and promotes policies and strategies for low-carbon/carbon neutral, resilient and sustainable societies with stakeholders in Asian cities, including those in Japan. In collaboration with other regional and international organisations and networks, IGES facilitates the sharing of solutions and strategies among like-minded cities, and contributes to enhancing implementation capacity at the city level.

Major Activities in FY2020

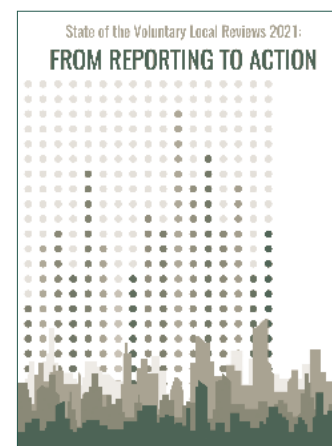
Supporting SDG Localisation through Voluntary Local Reviews (VLRs)

In FY2018, IGES supported three Japanese municipalities, namely Shimokawa Town (Hokkaido), Toyama City, and Kitakyushu City to produce the Voluntary Local Review (VLR) reports that were the first VLRs in the world together with the VLR of New York City. In FY2019, IGES supported the VLR report of the City of Hamamatsu, which the Mayor of Hamamatsu launched at an event at the SDG Summit held in New York in September 2019. IGES also published the Shimokawa Method for Voluntary

Local Review (VLR) that shows practical steps for the VLR based on the experience of VLR of Shimokawa Town, as reference material for local governments interested in conducting their VLR.

IGES provides showcases for SDG actions by local governments through the “VLR Lab,” an online platform of VLR launched in March 2019 in collaboration with partner organisations including the United Cities and Local Governments Asia-Pacific (UCLG ASPAC). In June 2021, IGES published the “State of the VLR 2021”, the second volume of a series started in 2020 aiming to annually review the progress of the VLR movement. The report explores VLRs published in 2020 focusing on the influence of the VLR process on the SDG governance structure and the integration between national and local on the review process.

IGES also contributed to information-sharing and capacity development on SDG localisation through a session on VLR-VNR Linkage at ISAP2020, as well as two webinars on VLRs organised under the framework of the SDGs Public-Private Partnership by the Cabinet Office of Japan, and the Asia Pacific Mayors Academy led by the UNESCAP and UN-HABITAT.



Research Report “State of the Voluntary Local Reviews 2021: From Reporting to Action”

Sharing Lessons and Providing Support towards Zero-carbon Cities

IGES has been supporting city-to-city collaboration projects such as “T2KLLCS” (Tokyo to Kuala Lumpur Low Carbon System) since 2019. Under a collaborative project conducted by Tokyo and Kuala Lumpur (KL), Tokyo shared its building energy efficiency and renewable energy policy schemes and

programmes, in order to support the development of a sustainable building policy framework for KL, thereby contributing to securing the city's own budget to conduct four energy efficiency retrofitting projects on KL's public buildings and providing zero carbon scenarios towards 2050. IGES co-organised the Zero Carbon City International Forum with the Ministry of the Environment, Japan, UNFCCC Secretariat, and ICLEI in March 2021. Twenty-eight cities and relevant entities from 15 countries and

11 international organisations and institutions participated in the forum, where the mayor of KL declared that the city will aim to be carbon neutral by 2050. In West Java, Indonesia, a study to explore the linkage between the climate and the SDGs was carried out in collaboration with QAC.

IGES also continued to contribute to the China-Japan-Korea Joint Research on Decarbonisation of Cities endorsed at the 20th Tripartite Environment

Ministers Meeting among China, Japan and Republic of Korea (TEMM 20) in Suzhou, China, in June 2018, and the final report of "Good Practices towards Decarbonization and Sustainable Cities" was produced.

Selected Publications

- Research Report "State of the Voluntary Local Reviews 2021: From Reporting to Action"
- "Taiyo Juken SDG Report 2020" (voluntary SDG review by a SME)
- Peer-reviewed Article "Sustainable Transition towards a Resilient and Decentralized Future: Japan's Circulating and Ecological Sphere (CES)" (Sustainability Science)
- Book Chapter "Skenario Pembangunan Rendah Karbon di Indonesia, Studi Kasus Jakarta dan Semarang" (Ketahanan Iklim Perkotaan (English: Urban Climate Resilience))
- Book Chapter "Pembangunan Rendah Karbon di kota-kota di Indonesia- Faktor Pendukung, Peluang dan Tantangannya" (Ketahanan Iklim Perkotaan (English: Urban Climate Resilience))



Webinar on T2KLLCS (5 Feb 2021)
(photo from top to bottom: Junichi Fujino, IGES; Mahadi Bin Che Ngah, Mayor of Kuala Lumpur; Toshiko Chiba, Tokyo Metropolitan Government)

Research Highlights: Stakeholder Taskforces

Finance Taskforce

Outline

Delivering on the SDGs and commitments under the Paris Agreement requires mobilising and shifting large amounts of public and private capital. To achieve low-carbon and climate resilient sustainable development, IGES is engaged in policy research and recommendations as well as capacity building. Specific areas of focus are responsible investment (e.g. ESG investment), financing options, financial disclosure on climate-related risks, responses to business opportunities, and financial flows related to SDGs.

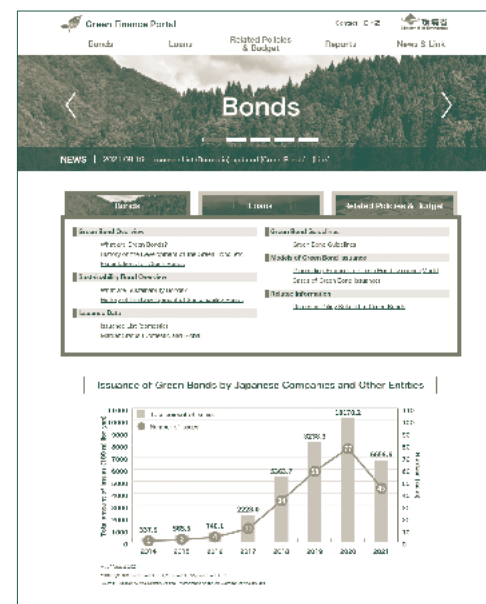
Major Activities in FY2020

Green Bond Knowledge Platform

IGES has been engaged in commissioned work on green bonds from the Ministry of the Environment, Japan (MOEJ) since April 2017. MOEJ has strongly facilitated the issuance of green bonds in Japan through development of the Green Bond Guidelines, support for demonstration projects, subsidy programmes and the knowledge platform. Since April 2018, IGES has served as the secretariat of the knowledge platform on green bonds, which was expanded to become the Green Finance Portal from April 2020, adding other green finance products with their policy tools.

IGES also supported MOEJ in a secretariat role regarding the revision process of the Green Bond Guidelines (initially established in 2017) and in the drafting process of the Green Loan and Sustainability Linked Loan Guidelines. The revised Green Bond Guidelines and the new Green Loan and Sustainability Linked Loan Guidelines were released in March 2020.

In FY2020, IGES continued to collect and consolidate information on the status of the global green bond/green loan/sustainability linked loan market, green bond/loan guidelines in various countries and regions, good practices on these financial products, definition and taxonomy of green projects, and so forth. One new area highlighted in FY2020 was Climate Transition Finance which aims to finance transition efforts toward decarbonisation by carbon intensive companies (brown companies) in particular. IGES collected information on good practices for this topic including the International Capital Markets Association (ICMA), Green Bonds Initiative, and other global financial institutions. Some of this information was utilised to issue the Basic Guidelines on Climate Transition Finance in early May 2021. These provide guidance on transition-labelled financial instruments prepared by the Ministry of Economy, Trade and Industry (METI), the Financial Services Agency (FSA) and MOEJ.



Green Finance Portal (MOEJ) website

Sustainable Finance

In order to mobilise the huge amount of funding required to implement the SDGs, it is essential to build sustainable financial systems in which the financial sector, including banks, investors and other service providers, will shift finance and investments to greener and more sustainable options. For example, the EU has taken the lead, developing the EU Action Plan on Sustainable Finance in March 2018. In Japan, the Expert Panel on Sustainable Finance, established under the FSA, produced and issued a report to clarify the most up-to-date thinking on key aspects of sustainable finance policy. IGES has been following such global and domestic trends on sustainable finance. In FY2020, IGES focused on mainly three areas in sustainable finance.

- Strategic Partnership to Implement the Paris Agreement (SPIPA): Japan-EU Policy Dialogue on Climate Change: IGES conducted research work on identifying and comparing best practices for policies on sustainable finance both in the EU and Japan. In particular, policy developments related to sustainable finance in Japan were updated, including the Expert Panel on Sustainable Finance (FSA), the Council of Experts Concerning the Follow Up of Japan's Stewardship Code and Japan's Corporate Governance Code (FSA), the Taskforce on Preparation of the Environment for Transition Finance (METI/FSA/MOEJ), the Expert Panel on Climate Change (Cabinet office), the National/Regional Decarbonization Realization Committee (Cabinet Office), and the ESG High Level Panel (MOEJ).

- Regional ESG finance: IGES collected and consolidated information on ESG good practices by local banks, in order to identify challenges and opportunities to enhance ESG finance at the local level, under commissioned work by MOEJ. Discussions began on how to integrate ESG finance in the SDGs certification system in Kitakyushu, and on how to assess the impact of the SDGs by local banks including Shiga Bank, which promotes ESG finance to protect local environment and support decarbonisation efforts by companies.
- Climate adaptation finance: IGES conducted research work with NRE (Adaptation team) to identify barriers and opportunities for the private sector to finance climate adaptation. As a result of the work, guidelines were developed on climate adaptation finance for private financial institutions. The guidelines summarise the implementation approach and the role of financial institutions in addition to showing the basic concept of adaptation finance. They also aim to support the creation of successful cases by introducing specific good practices. This work was jointly conducted with Mitsubishi UFJ R&C under MOEJ's commissioned work.

Selected Publications

- Policy Report "Japan EU Comparative Analysis on Sustainable Finance Policy" (English and Japanese versions)
- Issue Brief "Japan Sustainable Finance Policy Update (December 2020 – February 2021)"
- Issue Brief "Japan Sustainable Finance Policy Update (March 2021 – May 2021)"
- Presentation "Green Bond and Related Financial Products and Policies"
- Presentation "Background of EU Taxonomy and Responses from Stakeholder"
- Commentary "Comment on the Policy of "Public Support for Coal-fired Power Exports": Support for Decarbonisation must be Provided on a Timeline Consistent with the Paris Agreement in order to Close Loopholes" (in Japanese)

Research Highlights: Stakeholder Taskforces

Business Taskforce

Outline

IGES has continued its activities to generate outcomes and impacts by supporting highly motivated businesses in Japan, specifically targeting the promotion of climate change and decarbonisation policies in businesses in Japan.

Major Activities in FY2020

Developing Momentum for Decarbonisation in Japanese Industry

As the secretariat of the Japan Climate Leaders' Partnership (JCLP), IGES has supported the

participation of JCLP co-chairs in the High-level Roundtable on Climate Action held at the UN General Assembly to share and discuss good practices for avoiding the climate crisis. Support was also extended for an appearance by JCLP on NHK's programme "Shiten Ronten (Point of View, Point at Issue)", as well as a meeting between COP26 President, Alok Sharma. In addition, IGES has contributed to developing momentum on decarbonisation among businesses through dialogues between overseas business groups and JCLP, and transmission of information to domestic industries by JCLP.

Expansion of the Corporate Network of JCLP

JCLP has continued to expand in size during FY2020. Its membership has grown from 146 in June 2020 to 189 members as of June 2021 (29% growth from the previous year). As a measure of its significance in the Japanese business sector, the joint sales figures of JCLP members make up approximately 20% of sales for all Japanese companies.

Supporting Decarbonisation by Businesses

JCLP cooperated with The Climate Group to support the participation of Japanese companies in RE100¹, EV100² and EP100³. In particular, the number of RE100 companies has increased by 22 in one year to 56 companies (about 4.8%⁴ of Japan's electricity demand) as of the end of June 2021, further increasing their impact. In addition, RE100 has been frequently featured in governmental committees and the media, and has some impact on considerations for Japan's decarbonisation policies and in raising awareness. In May 2020, JCLP launched a project to study the implementation of physical power purchase agreements (PPA) in Japan, and through a year of support from the JCLP secretariat, the project has led to the formation of



Participation of JCLP co-chairs in the High-level Roundtable on Climate Action held at the UN General Assembly



Meeting with COP26 President, Alok Sharma

- 1 International business initiative committed to 100% renewable power, working to massively increase corporate demand for and delivery of renewable energy.
- 2 International business initiative aiming to drive the transition to electro-mobility.
- 3 International business initiative pledging to double the energy productivity of businesses.
- 4 Reference values including overseas bases

a pilot project and accelerated decarbonisation efforts. In addition, the JCLP secretariat also contributed to raising awareness of RE100 in Japan by informing the Japanese media that the number of companies participating in RE100 has exceeded 300 worldwide, that 50 companies in Japan have joined RE100, and that the electricity consumption of RE100 companies has exceeded that of the UK.

Promoting Expansion of Renewable Energy in Japan

IGES and JCLP, together with ICLEI Japan and Green Purchasing Network launched “RE Action”, a new initiative in Japan for SMEs, educational institutions, medical institutions and local governments to declare switching to 100% renewable electricity by 2050. The initiative was established in October 2019 with 28 participating organisations. RE Action and RE100 have a complementary relationship with the aim of expanding demand for renewable energy in Japan, and the number of participating organisations has increased from 70 in June 2020 to 151 as of the end of June 2021. Seventeen organisations from ministries, prefectures and ordinance-designated cities have joined as ambassadors to support this activity, including Ministry of the Environment, Japan and Kanagawa Prefecture. In some cases, such as in Tottori Prefecture, the initiative has been used as a banner to build momentum for promoting renewable energy among municipalities, associations of commerce and industry, SMEs and financial institutions.

Policy Engagement

JCLP has participated in the following committees that encourage recommendations for ambitious policy engagement from a corporate perspective: 2050 Carbon Neutral National Forum at the Prime Minister’s Office; Expert Panel on Climate Change held by the Prime Minister; Policy Subcommittee and Carbon Pricing Subcommittee of the Central Environment Council; and the Subcommittee for Medium- and Long-term Climate Change Countermeasures (Ministry of the Environment). In addition, JCLP participated in the Minister of the Environment’s Policy Subcommittee on Carbon Pricing. JCLP also held dialogues with the Minister of the Environment, the Vice Minister of Economy, Trade and Industry, and the Minister of State for Regulatory and Administrative Reform to convey the enthusiasm of companies for decarbonisation and to call for the introduction of more ambitious policies. JCLP issued six statements and recommendations,



JCLP participating in expert panel held by the Prime Minister

held dialogues with the Ministry of the Environment, the Ministry of Economy, Trade and Industry, the Ministry of Land, Infrastructure, Transport and Tourism, and the Cabinet Office, and put out an advertisement on its view in the LDP’s journal. IGES supported in its coordination as the JCLP secretariat.

Selected Publications

- Policy Proposals on Carbon Pricing and Emissions Trading Scheme (by JCLP)
- Policy Proposals for Accelerated Adoption of ZEVs for Road Freight (by JCLP)
- Policy Proposals on Diversification of Non-FIT Renewable Energy Options (by JCLP)
- Position Statement on Japan’s Mid-Term Greenhouse Gas Emissions Reduction Target (by JCLP)
- RE100 companies call on the Japanese government to increase renewables ambition ahead of COP26 (by 53 RE100 Members)
- Policy Proposals on Soaring Electricity Wholesale Trading Market This Winter (by JCLP)
- Policy Proposals on Japan’s Energy Mix Calling for a Renewable Electricity Target of 50% by 2030 (by JCLP)
- Climate Leaders’ Signal
- JCLP Website & Twitter
- Renewal of JCLP Brochure

Research Activity Facilities & Units

Activities at IGES Satellite Offices

● Kansai Research Centre

The Kansai Research Centre (KRC) carries out research focused on actions taken by the private sector, in particular businesses that promote environmental and energy conservation measures, under the theme of “Business and the Environment”. Specifically, KRC contributes to actual reduction in GHG emissions in developing countries by promoting the transfer and diffusion of low-carbon technologies (LCTs) and promotes decarbonisation of local municipalities and localising SDGs in collaboration with Hyogo Prefecture.

Low-carbon Technology Transfer in India and Thailand

In India, KRC has been promoting transfer of Japanese LCTs to Indian companies through the Japan-India Technology Matchmaking Platform (JITMAP), which was launched in 2016 with The Energy and Resources Institute (TERI) with support from the Ministry of the Environment, Japan (MOEJ). In January 2021, an online workshop was held to help Indian stakeholders such as Indian steam-intensive manufacturing companies deepen their understanding of the Steam Management

System designed by TLV International, Inc. (Hyogo Prefecture, Japan). In February 2021, another online workshop was held to inform Indian stakeholders about the status of smoke emission control and management in thermal power plants, as this is one of the main causes of pollution in India. The workshop also highlighted the importance of introducing technologies to accurately measure and evaluate smoke emissions. In addition, IGES investigated the application status of recommended LCTs and effective operational practices of the Indian companies where feasibility studies were implemented in the past. This study confirmed that several local companies have introduced the LCTs such as air compressors and energy-efficient



Feasibility study on compressed air system by a Japanese expert (Ahmedabad, Gujarat state, India)

transmission belts, and many companies have adopted effective operational practices of compressed air systems, thereby achieving energy savings. It was also found that participants in the sessions for training of trainers had contributed to the adoption of energy-saving equipment by Indian companies through their own energy audits.

In Thailand, under a project by MOEJ, with the cooperation of the Energy Conservation Center, Japan (ECCJ), IGES proposed the adoption of practical energy conservation measures to the Department of Alternative Energy Development and Efficiency (DEDE) of the Department of Energy. Specific recommendations include analysing data



Feasibility study on steam management system by a Japanese expert (Vapi, Gujarat state, India)

from the annual report on the amount of energy used submitted by designated factories and buildings every year, evaluating the energy saving tendency and determining the energy intensity for each industry based on it, and providing free energy-saving diagnosis and equipment subsidies for small and medium-sized enterprises that lag behind in promoting energy-saving. Positive responses to these proposals have been obtained from DEDE officials, and the results of discussions were shared at a joint meeting with the Natural Resources and Environment Policy Planning Bureau (ONEP) of the Ministry of Natural Resources and Environment (MONRE), Thailand Greenhouse Gas Management Organization (TGO), the Bangkok Metropolitan Government (BMA), Japan Embassy in Thailand and JICA Thailand Office. A declaration on decarbonisation and its feasibility is being studied in Thailand, with this project scheduled to continue providing support.

Japan Platform for Redesign: Sustainable Infrastructure (JPRSI) works

MOEJ has launched the Japan Platform for Redesign: Sustainable Infrastructure (JPRSI) to promote the overseas expansion of high-quality environmental infrastructure. IGES, together with the Overseas Environmental Cooperation Center (OECC) and Global Environment Center (GEC), serves as the secretariat. JPRSI aims to support the activities of private companies that are actively working on overseas expansion of environmental infrastructure such as waste management, wastewater and smoke treatment, energy saving, renewable energy development and smart city development through forming a network of related ministries, agencies,

local governments, private companies, financial institutions and experts and thereby strengthening their proposal-drafting capabilities and business matching. IGES, particularly KRC and KUC, supports JPRSI project development through formulating local human resources networks and sharing information on the intercity collaboration projects.

Regional Circular and Ecological Sphere (Regional-CES) Model Project in Hokusetsu Region

The Hokusetsu Satoyama Regional-CES Project is an initiative aimed at revitalising the local economy by effectively utilising local resources in the Hokusetsu area (Takarazuka City, Kawanishi City, Inagawa Town, Sanda City) in Hyogo Prefecture. This project was selected by MOEJ as a “Platform Project for Creating a Regional Circulation Symbiotic Zone that Energizes Local Areas in the Environment” in FY2019 and FY2020. By exchanging opinions and coordinating with the parties concerned, a project for effective utilisation of woody biomass through the conservation of the Satoyama has become the core activity. This project focuses on the prefectural environmental forest (866ha) in the Nishitani district of Takarazuka City. It harvests about annually 2,000 tonnes of timber, mainly broad-leaved trees, in a sustainable manner from the 100,000 tonnes of stock, and turns it into chips for heat. The project aims to form a business model with particular focuses in 2021 on building a logging and maintenance system, manufacturing and selling fuel chips, and launching a regional energy company that provides sales and maintenance services for wood chip boilers.

Promoting Renewable Energy 100% in Hyogo

Long-term transition to a decarbonised society requires proactive participation of local governments and non-state stakeholders with a well-designed coordination of multi-level governance. This project aims to collect information from industry energy consumers, provide strategic information to facilitate discussions among stakeholders, and look for policy options for a decarbonised society at the prefectural level. In FY2020, an analysis was made based on a questionnaire survey targeting about 2,000 energy consumers and interviews carried out on both supply and demand-side entities in Hyogo Prefecture. The results of these surveys formed a basis for policy proposals to be implemented by the municipal government. The IGES proposal has resulted in further exploration to develop a financial scheme and relevant policy frameworks to make more use of renewables, which is a key focus of the continuing activity in FY2021.

Collaborative Lecture Course on Decarbonised Society at Kobe University

In collaboration with Kobe University's Econo-Legal Studies (ELS) programme, IGES held a total of 12 lectures on the theme of a carbon-free society in the first half of 2020, for third and fourth grade students and graduate students. The contents of the lectures included the United Nations Framework Convention on Climate Change, efforts of each country under the Paris Agreement, energy policy, carbon pricing, initiatives by private companies and financial institutions, efforts by local governments and regional energy companies, etc. Students discussed the legal and the socio-economic systems to bring about change. In the second half of the year, a proposal

promoting decarbonisation at Kobe University was compiled and submitted to the director of the SDGs Promotion Office. The contents of the proposal were (i) to become Japan's first comprehensive university declaring carbon neutrality; (ii) to hold an "environmental conference" that includes stakeholders such as students; and (iii) to develop a practical research and education programme under the theme of decarbonisation. The proposed environmental conference was actually formally established in April 2021. The collaborative lecture course is being continued in 2021 and messages from the students are being compiled to contribute to the decarbonisation of Kobe University and the promotion of decarbonisation in collaboration with local governments such as Kobe City and the local community.

Support for Hyogo High School Environmental/Future Leader Development Project

The Hyogo Prefectural Government and the Hyogo Environmental Creation Association held a five-day workshop on "Hyogo High School Student Environment and Future Leader Development Project" in FY2020. KRC planned and drafted this programme and moderated the five-day workshop. The overall theme was "Climate Change Countermeasures and Realization of a Carbon-free Society". Participants learned the actual situation of climate change and its impact on the economy, society and environment, as well as measures by each country and local efforts in the first three days (3 October, 14 November, 12 December), drafted a message on the fourth day (13 December), and presented the message to the directors of Hyogo Prefectural Government and the media on the final

day (23 January). The lecturers were representatives from the National Institute for Environmental Studies, Toyota Motor Corporation, Borderless Japan Co., Ltd., Kobe Shimbun Co., Ltd., Prefectural Environmental Management Bureau and IGES. A total of 37 students participated from 16 schools in the prefecture. In the final round, participants were divided into seven groups and each group presented on the following topics, respectively: environmental education; local government communication to residents; setting up high school student environmental measures promotion committee members; promotion of environmental activity movements; business for solving social problems; nudging for environmental actions; and explanation on environmental problems in an easy-to-understand manner. Some of the students then participated in a follow-up activity to create a pamphlet for high school students explaining the prefecture's global warming countermeasure promotion plan; in this way, the activities are expanding.

Selected Publications

- Hokusetsu Satoyama R-CES Project website: <https://hokuces.jp/>
- "Citizenship Education and its Application in Japan: Kobe University Students' Policy Proposals towards a Decarbonized Society" (Kobe Law Journal)
- Commentary "Is the RE100% Scenario Truly 'Unrealistic'? Addendum: Response to the RITE's Commentary" (Japanese version)
- Commentary "Is the RE100% Scenario Truly 'Unrealistic'? Let's Broaden Available Options

to Realize Decarbonization in the Power Sector" (Japanese version)

- "Keywords to Use Renewable Energy for Sustainable Businesses" (Japanese version)

Kitakyushu Urban Centre

The Kitakyushu Urban Centre (KUC) is located in the City of Kitakyushu, which has gone from being a byword for pollution to one of Japan's pre-eminent environmental cities, and is now aiming to become a SDGs frontrunner. KUC currently conducts practical research activities with cities in the Kyushu region including Kitakyushu, as well as cities in Asia and the Pacific countries to promote local governmental initiatives to realise sustainable cities in the areas of resource circulation, zero-carbon, green growth and localisation of the SDGs.

Mainstreaming Low-carbon and Resilient Policies into Urban Planning and Implementation

In light of the increasing number of zero-carbon cities in Japan, IGES conducted a survey on the background and current status of the cities in Kyushu region which have declared a commitment to zero-carbon, and the challenges they face. The results were compiled into a report and published as an IGES Issue Brief (both in English and Japanese), and disseminated at workshops and events hosted by the Ministry of the Environment, Japan (MOEJ). In addition, IGES participated in individual projects (i.e. collaboration projects between Palau – Kitakyushu; Iskandar – Kitakyushu; Soc Trang - Hiroshima) of the MOEJ's "City-to-City Collaboration Project for a Zero Carbon Society" (20 projects were adopted

in FY2020). This project aims to deploy overseas the zero/low-carbon technologies and know-how accumulated in Japanese cities under the framework of city-to-city collaboration. IGES has been working on this project continuously since FY2013, and contributed to maintaining momentum toward the realisation of a zero-carbon society at the city level in Japan and internationally, even under the COVID-19 pandemic. IGES participated as a short-term expert in a JICA project to support the Climate Change International Training Center (CITC) in Thailand, which was established as a base for South-South cooperation, and conducted capacity building for staff in ASEAN member states by developing a training curriculum and holding training courses on climate law and regulations.

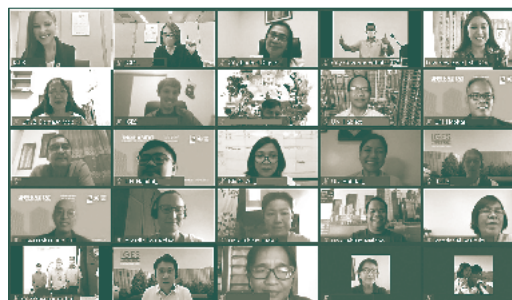


Issue Brief "Commitment to Net Zero Carbon Emissions by 2050 by Local Governments in the Kyushu Region of Japan - Background, Current Situation, and Challenges"

Evolving Sustainable Waste Management Practices

With the aim of building a resource-circulating society, IGES provided support to central and local governments and international organisations in Asia on waste management policies, planning and implementation. Specifically, IGES was commissioned

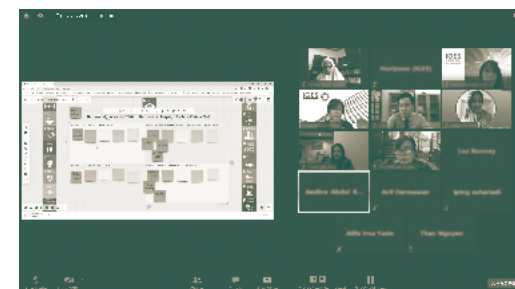
by UN-HABITAT to be an implementation partner of the Healthy Oceans Clean Cities Initiative (HOCCI), a project to reduce marine plastics in six model cities in the Philippines. In addition, an international proposal for the establishment of a resource-circulating model targeting plastic waste in Samet Island, Thailand was accepted by Alliance to End Plastic Waste (AEPW), and a feasibility study was initiated. The Japan-ASEAN Integration Fund's (JAIF) SDGs Frontrunner Cities Program supported the development of an action plan for reducing marine plastics in Viet Nam and local action plans in Hai Phong City and Bac Lieu Province, as well as the implementation of a pilot project for reducing marine plastics. In addition, IGES provided technical assistance to the World Bank, providing support for the institutional design and implementation of a pilot project on Extended Producer Responsibility (EPR) policy for plastic waste in Bangladesh. In Japan, IGES contributed to the creation of the "Kitakyushu Circular Economy Vision" which shows the future direction of environmental industries located in Kitakyushu in transition to a circular economy, working in collaboration with a local business consortium.



Inception Workshop of Healthy Oceans Clean Cities Initiative (HOCCI)

Promoting Green Growth and Sound Urban Environmental Management (Localising the Sustainable Development Goals (SDGs) in Kitakyushu City and Kyushu Region)

IGES researchers have been acknowledged as practitioners and experts on SDGs localisation, and have been invited to various important international and domestic events as speakers. These include the International Forum on the SDGs for Regional Revitalization (by the Cabinet Office Japan, Jan. 2021); VNR-VLR Lab at the 8th Asia-Pacific Forum on Sustainable Development (APFSD) (by UNESCAP, Mar. 2021); Creative City Policy (by the Agency for Cultural Affairs, Japan, Mar. 2021); Mayors Academy (by UNESCAP, Apr. 2021); and Localising the Global Goals (by UN Global Compact Network UK, Jul. 2021). Regarding the OECD's Territorial Approach to the SDGs, IGES contributed to the successful finalisation of the Kitakyushu City's report and launch event in June 2021. While the role of Kitakyushu City as a pilot will end this year, IGES will remain as a member of the Steering Committee of OECD to continue to work further on developing a Tool Kit and Snap Shot of indicators to maximise the output of the programme. IGES



The 2nd Kitakyushu SDGs Training

organised the 2nd Kitakyushu SDGs Training online in March 2021 and further promoted collaboration with local stakeholders including contributions to the 8th Higashida Conference for Sustainability; taking part in the evaluation process for selecting award nominees of Kitakyushu SDGs Award 2020 as a committee member; and providing lectures at several universities. As a new initiative, IGES led a discussion with MOEJ regional office in Kyushu, the City of Kitakyushu, and local financial institutes to develop an ESG finance system in conjunction with the SDGs registration system set up by the city government.

Selected Publications

- Issue Brief “Commitment to Net Zero Carbon Emissions by 2050 by Local Governments in the Kyushu Region of Japan: Background, Current Situation, and Challenges” (English and Japanese versions)
- Report Chapter “Overseas Water Business Initiated by City of Kitakyushu” (Chapter 4 of Kitakyushu Overseas Water Business Association’s 10th Year Anniversary Report) (Japanese version)

Regional Centre in Bangkok

IGES Regional Centre in Bangkok (BRC) has served as a hub for networks and partnerships in the Asia-Pacific region since its establishment in 2011. It focuses on priority issues including climate change mitigation, adaptation, environmental safeguards and sustainable cities, and manages relevant networks for knowledge sharing, as well as implementing relevant projects in close

collaboration with various supporting organisations and national and sub-national governments.

Climate Change Mitigation

The UNFCCC-IGES Regional Collaboration Centre (RCC) provides multifaceted support to facilitate the implementation of the Paris Agreement. RCC conducted a survey to encourage Parties to enhance ambition in their updated and new Nationally Determined Contributions (NDCs) and organised a workshop on Good Practices in Update and Implementation: Challenges and Lessons Learned from Asia, Middle East and North Africa. For climate finance, RCC has implemented several Needs-Based-Finance projects in a number of subregions, including ASEAN, Asian LDCs, Central and North Asia and Polynesia. On market mechanisms, the RCC continues to provide support for the Clean Development Mechanism (CDM) and standardised baselines in the Asia-Pacific region and assists ASEAN countries and Pakistan in exploring the potential of carbon pricing instruments. RCC has also played a more prominent role for monitoring, reporting and verification (MRV) networks in South East and South Asian countries, and has paired with partners to organise a series of virtual workshops on the Enhanced Transparency Framework and existing MRV mechanisms.

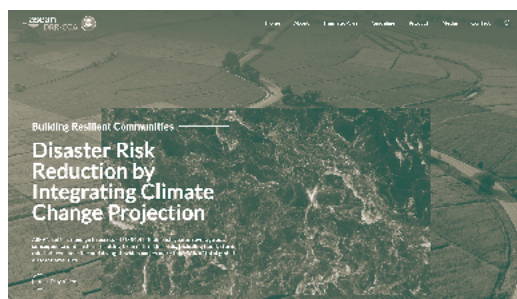
Climate Change Adaptation

Climate change brings an additional dimension to existing disaster vulnerabilities in the ASEAN region. The need to incorporate climate change impact into hazard and risk assessment cannot be over emphasised. A project on disaster risk reduction by integrating climate change projection into flood

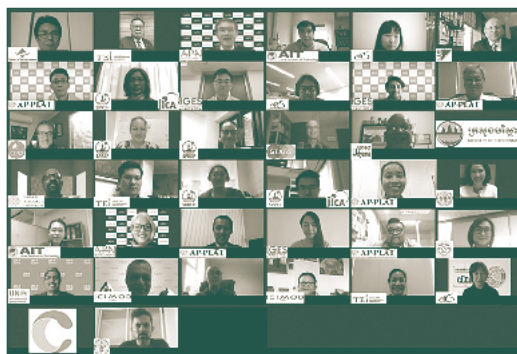
and landslide risk assessment (ASEAN DRR-CCA) has been designed to provide adequate transfer of necessary knowledge, tools and techniques related to hazard and risk assessments, integrating future climate projections/scenarios through joint-implementation in selected river basins. The project targets long-term positive impact and aims to make meaningful progress by improving institutional mechanisms and integration of DRR/CCA into local development plans, enhancing technical skills and techniques to help address future systematic risks and enhance better inter-ministerial/agency coordination. The ability to understand uncertainties in assessing future systemic risks is a step forward in risk reduction planning and implementation.

The Final Seminar of ASEAN DRR-CCA was held on 23 February 2021, marking the completion of Phase-1 and the official launch of the “ASEAN Guidelines on Integrating Climate Change Projections into Flood and Landslide Risk Assessments and Mapping” endorsed by 10 ASEAN countries. Since October 2018, 15 activities have been carried out with more than 600 participants altogether. In addition, a set of questionnaires was designed to collect indirect/direct impacts of disasters, collect socio-economic data to assess vulnerability and capacity to respond to disaster in 40 selected communities/villages. Findings, good practices and lessons learned during the implementation have been documented through various knowledge platforms and information audio-visual materials, available at <http://aseandrr.org>. Complementing the AADMER, SFDRR, the Paris Agreement and the SDGs, activities will continue to exhibit synergies with future interventions to address emerging disaster and climate change risks.

In addition, BRC contributed to the launch of the Asia-Pacific Adaptation Information Platform (AP-PLAT) Capacity Development Program together with NRE. Under the commissioned work of the Ministry of the Environment, Japan, BRC carried out analysis of existing adaptation training programmes in the Asia-Pacific region, held a pilot mentoring activity for GCF project formulation, and organised a workshop in order to identify current challenges associated with adaptation training in the region, and to discuss the benefit of regional collaboration among training institutions.



ASEAN DRR-CCA website



Virtual Workshop on AP-PLAT Capacity Development Programme

Localising the SDGs in ASEAN Cities

The 4th (Regional) Closing Workshop of the ASEAN SDGs Frontrunner Cities Programme (SDGs-FC) was organised on 1-2 December in virtual format with about 70 participants. The Workshop recognised the collective programme outputs (1 Regional Report, 8 Country Report, 25 city reports on the SDGs, 11 city showcase videos & 1 Regional Showcase Video) and recognised the achievements of participating cities in improving the local environmental quality through innovative bottom-up 3R, urban greening, and MRV initiatives. In addition, a proposed concept and direction for the SDGs-FC future phase was presented by IGES and endorsed by the focal points. Subsequently, the Project Completion Report was submitted and accepted in March 2021.

Environmental Compliance and Enforcement

Environmental governance and enforcement remain key challenges in developing countries in Asia, where legal frameworks for environmental protection are under development. To ensure the development of sound environmental policies and their effective implementation, there is a need for knowledge exchange and transfer between those currently developing policies and countries with more mature and tested frameworks in place. Asian Environmental Compliance and Enforcement Network (AECEN) has been holding discussions with the United States Environmental Protection Agency (USEPA) under the Biden Administration, together with the International Network for Environmental Compliance and Enforcement (INECE) and the Environmental Law Institute (ELI) and its partners (ADB, AusAID, EPAT, AELERT etc.), in order to strengthen partnerships for long-term collaboration

on environmental compliance and enforcement as well as environmental social safeguarding.

AECEN has been promoting and sharing a series of EIA articles (Phase 5 and 6) through the Asia Environmental Impact Assessment Network to increase capacity and knowledge-sharing among government officials in AECEN member countries as well as other practitioners worldwide.

Sustainable Consumption and Production (SCP)

Launched in 2007, the EU SWITCH-Asia programme has achieved more than a decade of progress on SCP in 24 countries in the region. For SWITCH-Asia's second phase of implementation in Viet Nam, IGES is leading a team of experts providing technical assistance on enhancing SCP in the seafood sector in Viet Nam by conducting policy assessment and capacity building in collaboration with the Vietnam National Cleaner Production Center and Oxfam. In Cambodia, IGES is leading a team of expert as part of SWITCH-Asia technical assistance to enhance policies on SCP and circular economy in the garment sector. This assistance includes preparing a policy analysis report, and conducting consultations with stakeholders such as the Garment Manufacturing Association in Cambodia (GMAC), GARMENTS-Asia Project, and the SWITCH-Asia Switch Garment project. These activities are being widely promoted through SWITCH-Asia channels, ensuring that IGES gains high visibility among the European Union and relevant stakeholders.

In just less than two years, the impact and results of SWITCH-Asia Communication Strategy have gone beyond expectations: 10,000 Twitter followers; more than 200,000 Facebook followers; a potential

audience of over 31 million (people who have seen SWITCH-Asia contents); and more than 180,000 website page views. The Programme is currently developing Phase II of the Communication and Social Media Strategy to be implemented from September 2021. There are 40 new publications that are being prepared by experts in Southeast and East Asia, South Asia and Central Asia. National and regional events are also being organised on a variety of topics including SCP and Sustainable Housing, Fashion and Garments Sustainability, Plastics and Waste Management, Agri-food and Communications.

Selected Publications

- Survey Report “The Progress of the Development of Nationally Determined Contributions”
- Discussion Paper “Explore Regional Mitigation Cooperation through Carbon Pricing in ASEAN”
- 7 Country SDGs Reports (Cambodia, Indonesia, Lao PDR, Malaysia, Philippines, Thailand and Viet Nam)
- 1 Regional Report on Cities & SDGs
- 25 City Priority SDGs/Activity Reports (Kep, Kampot, Pursat, Banjarmasin, Malang, Banyuwangi, Luang Prabang, Xamneua, Kaysone-Phonevihan, Yangon, Mandalay, Bagan, Nay Pyi Taw, Shah Alam, Kuala Langat, San Carlos, Valenzuela, Phuket, Udon Thani, Bansang, Chaman, Takhli, Wiangteong, Hai Phong)
- 1 Project Completion Report (commissioned report to JAIF/funder)
- 11 City Showcase Videos, 1 Regional Showcase video

- “ASEAN Guideline on Integrating Climate Change Projection into Flood Risk Assessments and Mapping”
- “ASEAN Guideline on Integrating Climate Change Projection into Landslide Risk Assessments and Mapping”
- 4 Case Study Report: Demonstration of application of methodologies, selection of tools and datasets, identification of key stakeholders – based on findings of pilot studies
- Regional Synthesis Report “Integrating DRR and CCA in ASEAN”
- Abstract for Global Assessment Report on Disaster Risk Reduction 2022 (GAR-2022) Contributing Paper “Disaster Risk Reduction in the ASEAN Region: Understanding and Assessing Systematic Risks of Floods and Landslides in a River Basin Context”
- Showcase videos, factsheets, website for ASEAN DRR-CCA [<http://aseandrr.org>]
- Proceeding of the workshop on Asia-Pacific Climate Change Adaptation Information Platform (AP-PLAT) Capacity Development Programme

● Beijing Office <IGES Sino-Japan Cooperation Project Office>

The Beijing Office was set up within the Sino-Japan Friendship Center for Environmental Protection of the Ministry of Environmental Protection of China in 2006 as a base to facilitate the implementation

of research activities in China. The office conducts a variety of studies and research activities based on bilateral cooperation with China, as well as multilateral cooperation (including international organisations).

Promoting the Co-benefits of Better Air Quality and CO₂ Reduction in China through Model Projects

The “Japan-China city- to-city cooperation project” was started in FY2014 to improve air quality in China, based on the existing relationship of friendship cities between Japan and China, and aimed at promoting Japan-China cooperation mainly by capacity building. This cooperation (Phase 1) ended in FY2018. From FY2019, new cooperation (Phase 2) started based on the “Agreement between the Ministry of the Environment, Japan, and Ministry of Ecology and Environment of the People’s Republic of China on cooperation to implement researches and model projects to improve air quality,” which was signed by the Ministers of the Environment of Japan and China at the Tripartite Environment Ministers Meeting among Japan, China and Korea (TEMM) in June, 2018. Policies of cooperation in Phase 2 are shown on p.39. In FY2019, IGES focused on coordination with stakeholders and local governments in Japan and China, and also on starting up new model projects. IGES started the following seven projects. The projects continued in FY2020, and discussion was also carried out on the possibility of disseminating the results of some of the model projects within China and also to third countries.

Policies of Cooperation in Phase 2

When deciding specific content for cooperation, research and model projects should be selected and implemented so as to fulfill the conditions shown below:

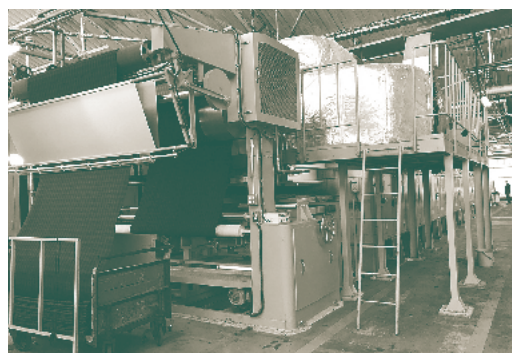
- 1 Impact given to policies and contribution to better air quality
- 2 Co-benefits of GHG reduction
- 3 Contribution of Japanese environmental technologies and facilities
- 4 Possibilities of horizontal development in China and development to Asian countries (third countries)

Model Projects being implemented in Phase 2 are as follows.

- 1 Model project on energy conservation and reduction of air pollutant emissions by introducing new technology to recover and reuse exhaust heat
- 2 Model project on measures for reduction of particular matter emissions by utilising residual stems from crops
- 3 Model project on measures to control small-scale distributed sources of air pollution in the restaurant industry
- 4 Model project on reduction of VOC emissions from manufacturers
- 5 Model project on CO₂ reduction by integrated use of household waste
- 6 Model project on energy conservation and reduction of pollutant emissions in textile dyeing industry
- 7 Model project on measures in priority areas to reduce ozone pollution over wide areas



Model facility installed on roof of building in the Sino-Japan Friendship Centre for Environmental Protection in September 2020 for model project on measures to control small-scale distributed sources of air pollution in the restaurant industry



Model facility (machine to adjust and stabilise width of cloth) under consideration to disseminate to a third country

Selected Publications

- Serial columns in “Kankyo Shimbum” (every month)
- Serial columns in “Global Net” magazine (every two months)

○Tokyo Sustainability Forum

The Tokyo Sustainability Forum (TSF) aims to facilitate impact generation with various stakeholders, particularly those based in Tokyo. It hosts the IPBES Technical Support Unit and is co-located with the ICLEI Japan office. The Forum implements the Japan Biodiversity Fund (JBF) IPBES Capacity Building Project, and also works in collaboration with the Natural Resources and Ecosystem Services Area and the City Taskforce.

IPBES Technical Support Unit

TSF continued to host the IPBES Technical Support Unit for the Assessment of Invasive Alien Species (TSU-IAS), and supported its work, including the development of a thematic assessment report on invasive alien species.

IPBES Capacity Building Project

TSF developed the final report for the IPBES Capacity Building Project that was started in April 2016 by JBF, and successfully completed the project.

International Collaboration on Environmental Impact Assessment (EIA)

In order to promote international collaboration on EIA among Asian countries, and commissioned by the Ministry of the Environment, Japan (MOEJ), TSF conducted research on EIA systems and their implementation in China, developed an information platform for the Asia EIA Network, and held EIA technical training seminars in Myanmar.

IGES Evening Forum

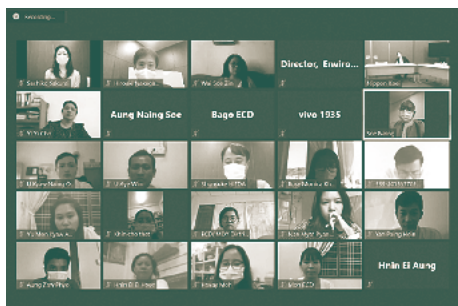
To strengthen cooperation between IGES and related organisations including MOEJ, TSF launched “IGES Evening Forum”, for cross-cutting exchanges of views. Two forums were held in collaboration with the Natural Resources and Ecosystem Services Area and the City Taskforce, respectively.

Function as a Satellite Office in Tokyo

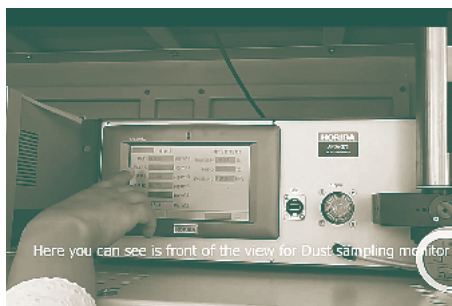
TSF took necessary COVID-19 countermeasures to prevent infection, assisted IGES staff with meeting support and provided administrative support to the IGES President, Managing Director and Senior Fellows/ Fellows based in Tokyo for implementing their activities.



Online MOU signing ceremony with UNESCAP



Online technical training on EIA in Myanmar



Here you can see is front of the view for Dust Sampling monitor

Selected Publications

- “Project Report on Promoting Asian Regional Collaboration on EIA”
- “EIA Guidebook for Japanese Companies (China)”

Activities at Other Facilities

Technical Support Unit (TSU) for the Intergovernmental Panel on Climate Change (IPCC) Task Force on National Greenhouse Gas Inventories (TFI)

The TSU for IPCC TFI provides scientific, technical and organisational support to the TFI under the supervision of the TFI Bureau (TFB) to fulfil the following two objectives.

- To develop and refine an internationally-agreed methodology and software for the calculation and reporting of national greenhouse gas (GHG) emissions and removals inventories;
- To encourage the widespread use of this methodology by countries participating in the IPCC and by signatories of the United Nations Framework Convention on Climate Change (UNFCCC).

Development, Maintenance and Improvement of IPCC Inventory Software

The IPCC Inventory Software¹ helps inventory compilers to estimate emissions and removals of greenhouse gases according to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006 IPCC Guidelines). In FY2020, the TSU worked extensively in developing the software through drafting specifications for the updates, contracting software company and testing beta versions of the software, as well as in developing supporting

tools, as Excel files and add-ons. TSU has attended a number of events to present the software, and participated in workshops organised by the UNFCCC Secretariat on training in its use.

Management of IPCC Emission Factor Database (EFDB)

The IPCC EFDB² is a database of emission factors and other parameters whereby national experts can find nationally appropriate values to develop national GHG inventories in accordance with the IPCC inventory guidelines. In FY2020, the TSU continued enhancing the usefulness of the database by collecting data, organising relevant expert meetings, including data meetings in the energy sector, and supporting the EFDB Editorial Board, as well as implementing managing and developing activities to improve the use of the database.

Production of Methodological Reports

The TSU has started preparatory work to produce a new Methodology Report on estimation of short-lived climate forcers (SLCF) emissions, following the

decision taken by the IPCC at its 49th Session. The TSU has collected information on SLCFs sources and estimation methodologies, produced two analytical tools of such information, shared those tools through virtual events with experts identified by TFB as participants to the expert meetings, and collected feedback. Further, TSU worked on corrigenda for the 2006 IPCC Guidelines and their 2019 Refinement.

Collaboration with Other Organisations

In FY2020, the TSU continued cooperation with other organisations on inventory-related matters. For example, the TSU contributed its support to inventory-related capacity building programmes implemented by the UNFCCC and the National Institute for Environmental Studies (NIES) by participating to virtual events organised by those organisations as well as by providing inventory-related materials developed by the IPCC TFI.

The TSU also collaborated with other projects in IGES, where possible, on matters relating to estimation of greenhouse gas emissions and removals.



19th EFDB Editorial Board meeting



32nd Task Force Bureau meeting

1 <http://www.ipcc-nggip.iges.or.jp/software/index.html>

2 <http://www.ipcc-nggip.iges.or.jp/EFDB/main.php>

Asia-Pacific Network for Global Change Research (APN)

APN is an intergovernmental network that aims to promote collaborative research and to develop the capacity of scientists and practitioners, especially in developing countries, in areas such as climate change, biodiversity and ecosystems, changes in atmospheric, terrestrial and marine domains, and adaptation and resilience. By supporting research and capacity development, APN assists in the development of policy that contributes to sustainable development and low-carbon societies in the Asia-Pacific region.

Collaborative Regional Research Programme (CRRP)

To contribute to the development of policy options that respond to global change from the scientific perspective in the Asia-Pacific region, APN provided support to the Collaborative Regional Research Programme (CRRP) approved at the 43rd Steering Committee Meeting.

Capacity Building Programme (CAPaBLE) etc.

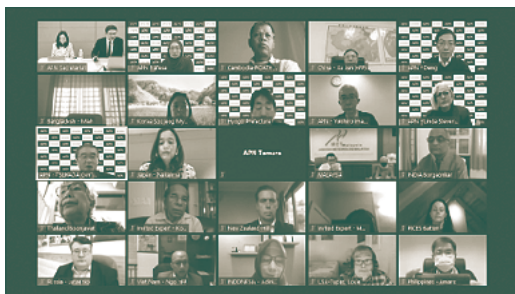
To build the scientific capacity in research on global change and sustainability in developing countries, APN provided support to the Capacity Building Programme (CAPaBLE) etc. approved at the 43rd Steering Committee Meeting.

Direction and Activities of APN

i. Development and Approval of the Fifth Strategic Plan

The Fifth Strategic Plan outlining specific goals and supporting mechanisms of APN in the fifth strategic phase (2020-2024) was developed, and was subsequently approved at the 24th

Intergovernmental Meeting (IGM) held online in February 2021. The IGM was initially planned to be held in June 2020 in Bangladesh; however, it was postponed due to the COVID-19 pandemic.



APN 24th Intergovernmental Meeting (IGM)

ii. Subregional Committees

To discuss the challenges and research needs common to the subregion, and ensure the effective implementation of programmes and activities at the subregional level, APN has established subregional committees in Temperate East Asia, Southeast Asia and South Asia. In FY2020, APN established the subregional committee for the Pacific, which coincides with the Fifth Strategic Plan that sets to strengthen collaboration with relevant institutions and support research on global change and sustainability issues in the Pacific region.

iii. Proposal Development Training Workshop (PDTW)

The Proposal Development Training Workshop (PDTW), which aims to develop the capacity of early-career scientists to compete for research funding, was planned to be held in Southeast Asia back-to-back with the Southeast Asia Subregional

Committee meeting. However, it was postponed due to the COVID-19 pandemic.

Contributions at Environmental Forums

i. Contributions at International Forums

APN made presentations and participated in discussions in a number of online international forums, including the 2020 Pacific Ocean Pacific Climate Change Conference (POPCCC) in October 2020, the 7th Asia-Pacific Adaptation Network (APAN) Forum in March 2021 and the 13th meeting of the UNFCCC SBSTA Research Dialogue in June 2021.

ii. Joint Activities with the Hyogo Prefectural Government

APN and Hyogo Prefectural Government, which hosts the Secretariat and provides operational support to APN, jointly organises annual forums to raise awareness on environmental issues among the residents of Hyogo Prefecture. In FY2020, APN, Hyogo Prefectural Government and IGES, jointly organised the "Regional Circular and Ecological Sphere (Regional-CES) Forum" in February 2021 in Kobe City. Prof. TAKEUCHI Kazuhiko, President of



Regional Circular and Ecological Sphere (Regional-CES) Forum

IGES, made a keynote speech and Prof. Rajib Shaw, Graduate School of Keio University, was invited to give a lecture.

Japanese Center for International Studies in Ecology (JISE)

JISE primarily carries out field surveys and practical research to restore and reconstruct ecosystems and biodiversity from local to global levels aiming to realise societies based on sustainable development from the perspective of plant ecology. In FY2020, JISE implemented the following activities to promote its projects, including training and information collection and provision on forests, nature regeneration and ecology.

Research Projects

On the international research front, JISE conducted basic and practical research projects aimed at the regeneration of tropical forests mainly in Malaysia, Kenya and Lao PDR, which were partially supported by external research grants. The projects promoted hands-on activities for reforestation and nature restoration by using ecological approaches to clarify floristic composition and structure of natural forests and growth conditions of planted trees and raised seedlings, and by providing technical support for school children to learn about biodiversity in educational institutions. In addition, JISE strengthened mutual cooperation with the IGES Natural Resources and Ecosystem Services (NRE) Area, and promoted research on ecosystem services evaluation and utilisation of forestry resources aiming at regeneration of Satoyama forests in Lao



JR East tree planting activities in Gunma Prefecture



PDR as well as a research on restoration of degraded forests in Southeast Asia. Furthermore, JISE started a joint study with domestic/international NPOs to restore old sites of mine development in the northern Philippines and identified a common theme for future activities.

On the domestic front, JISE carried out research on vegetation restoration of hardwood plantations in forest control/public works sites and around urban rivers (Fukui) and ecological surveys on environmental protection forests (Tokyo). Some outputs of the above-mentioned research projects were presented at various domestic academic meetings, as well as being published in the annual bulletin "Eco-Habitat", the "JISE REPORT" and newsletters. In light of restrictions on field surveys due to COVID-19, it was a good opportunity to summarise research results so far, with several research papers being published.

In addition to the above, JISE conducted other activities on forest regeneration and contributed to the promotion of nature restoration in domestic regions through projects commissioned by private companies, local governments and non-profit organisations. These included vegetation surveys and planning for forest and nature restoration, as well as technical instruction in tree planting in several prefectures including Tokyo, Gunma and Nagano.

Capacity Building

Previously held in-person, capacity development programmes for the purpose of developing skilled human resources for environmental conservation were cancelled or postponed to prevent the spread of COVID-19 infection. Taking this opportunity, efforts were carried out for future on-line programmes, by conducting trial sessions and preparing materials. In addition, JISE cooperated in creating "Ensuring Biodiversity and Conserving Ecosystems" on the

Kanagawa Environmental Research Center website "Environmental Manabisha" as a collaborative project. The results were published in the "JISE Report".

Interaction

JISE conducted an Open Seminar in June 2021, entitled "Learn from Past Disasters-Actual Conditions of Large-Scale Disasters and Disaster Lessons-". Twenty-six years have passed since the Great Hanshin-Awaji Earthquake, ten years have passed since the Great East Japan Earthquake, and, in two years' time, it will be one hundred years since the Great Kanto Earthquake in 1923. JISE planned this seminar to provide an opportunity to think about future disaster prevention measures from the perspective of environmental issues through the actual experiences of damage caused by large-scale disasters. This was the first time for this seminar to be held online, and it attracted participants from a wider range of fields in addition to environmental researchers.

Dissemination and Public Awareness

To disseminate news of JISE's activities and for public relations purposes, JISE distributed newsletters (three issues a year) highlighting its own activities as well as the efforts of various organisations in environmental conservation. JISE also published its annual bulletin "Eco-Habitat: JISE Research" and the occasional publication "JISE REPORT" (two issues), which contained both domestic and international research results related to ecology and practical activities for ecosystem conservation.

● Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Technical Support Unit for the Assessment of Invasive Alien Species (TSU-IAS)

IGES has been hosting the technical support unit for the IPBES assessment of invasive alien species and their control (IPBES-TSU-IAS) since February 2019 at TSF. The TSU has functioned as an extension of the IPBES secretariat that is headquartered in Bonn, Germany. The purpose of the TSU has been to support and assist in the coordination of the IPBES invasive alien species assessment, including drafting the assessment report.

Major activities in FY2020

The IPBES assessment of invasive alien species was launched in May 2019. In this project, around 90

experts selected from more than 40 countries are working on the scientific assessment of the status and trends of invasive alien species, their impacts to biodiversity and socio-economy, and policies or measures for their prevention and management. The final report and its summary for policymakers will be published in 2023.

IPBES-TSU-IAS has been providing support to the overall coordination of drafting work of the assessment report including the planning of the assessment timeline, organisation of author meetings, and managing references and data.

In FY2020, the TSU organised the second author meeting (November–December 2020, online), and the first and the second meeting to advance the summary for policymakers (February–March 2021 and June 2021 respectively, online). Additionally, it contributed to the organisation of the second dialogue workshop between authors and representatives of indigenous peoples and local communities (October 2020, online).

Funding for TSU operations is provided by the UNEP Trust Fund, matched by contributions from the Ministry of the Environment, Japan.



The second meeting to advance the summary for policymakers (SPM) of the IPBES assessment of invasive alien species (June 2021, online)

About IPBES

IPBES is an intergovernmental body established in 2012 with the objective to strengthen the interface between science and policy related to biodiversity and ecosystem services. IPBES has four functions, scientific assessment, capacity building, knowledge generation and policy support. These functions are the pillars of IPBES' efforts to ascertain the status and trends of global biodiversity and ecosystem services, the drivers of change, and the impacts on human wellbeing.

To date, IPBES has produced a thematic assessment of pollination and pollinators, a methodological assessment of scenarios and models, four regional assessments, a thematic assessment of land degradation and restoration and, most recently, a general global assessment. These outputs are expected to not only assess the state of progress in meeting the global biodiversity targets under the Convention on Biological Diversity as well as the SDGs, but also to contribute to policymaking at various levels, from local to international.

STRATEGY

Strategic Management Office (SMO)

Outline

The Strategic Management Office (SMO) is made up of three sections: Planning and Management; Knowledge and Communications; and Research and Publications. The SMO carries out comprehensive coordination of IGES research activities, and effectively promotes strategic research, publications and impact generation.

Major Activities in FY2020

Coordination of IGES Participation in Major International Policy Processes

The SMO played a facilitation role in encouraging cross unit collaboration in major international processes or events, including the Asia-Pacific Forum on Sustainable Development (APFSD), the High-level Political Forum on Sustainable Development (HLPF) and the G7 Climate and Environment Ministers' Meeting.

Furthermore, at the preparation stage of these international processes, IGES developed consolidated key messages and held press seminars; during the events, participation and arranging side events and information dissemination and sharing through social media; and then after the events, publication of commentaries, translation

of key documents, and webinars on insights and interpretation of these processes and events. In this way, IGES focused on disseminating results on multiple levels.

Promotion of Strategic Research

The SMO supports strategic research in various ways, from consultation on project planning and external funding applications to management of the approval and review process.

Priority research projects focused on strategically important policy agendas in the Asia-Pacific region and involving various units. In FY2020, IGES conducted cross-cutting research on climate change and the Sustainable Development Goals (SDGs), producing a research report entitled "A Net-Zero World – 2050 Japan –" (English translation) in the climate field, and jointly publishing two policy reports in the field of the SDGs with the Global Compact Network Japan (GCNJ): "SDGs and Business to Overcome the COVID-19 Pandemic: Actions by Companies and Organisations in Japan" (Japanese version) and "SDGs and Business in the ESG Era: Actions by Companies and Organisations in Japan" (English version). In addition to the climate and SDGs fields, IGES also focused on the urgent issue of the COVID-19 pandemic and waste, publishing a joint report with UNEP entitled "Waste Management

during the COVID-19 Pandemic: From Response to Recovery".

The SMO helped to coordinate several specific cross-unit research projects. One is an institute-wide project on the implications of COVID-19 for the environment and sustainability, resulting in the development of the concept of the "Triple R Framework", an integrated policy approach that links recovery from the pandemic to the realisation of a sustainable society, which was published as a position paper in December 2020. IGES made intensive efforts to provide policy recommendations to major related policy processes in Japan and overseas. Another project tracked the sustainability of countries' COVID-19 economic recovery programmes. There was also a project on climate which made use of stakeholder consultations to make recommendations for how to promote 1.5 degree lifestyles.

The SMO coordinates the internal Strategic Research Fund and Strategic Publication Fund to support research and publications on emerging and timely topics, and strategic priority areas. These often involve cross-group collaboration.

The transfer of the editorial office of the peer reviewed journal *Sustainability Science* to IGES was completed in FY2020, and it is located in the

SMO. Fourteen IGES researchers served as editorial board members, over 15 served as reviewers, and nine articles co-authored by IGES researchers were published in the journal during FY2020.

IGES made important contributions to five major ongoing assessment reports in FY2020 as authors. IGES contributed to all three Working Groups (WG) of the IPCC Sixth Assessment Report, and one IGES researcher is the chapter scientist for one chapter of WG 2. An IGES researcher is a Lead Author of the IPBES Thematic Assessment on Sustainable Use of Wild Species. Furthermore, IGES is coordinating the ASEAN State of Climate Change Report, and also participated in UNEP's Steering Committee on the Future of Global Environment Outlook (GEO).

Strengthening Domestic Outreach

With the movement to achieve a decarbonised society by 2050 gaining momentum in Japan and overseas, the SMO and the Climate and Energy Area jointly launched a series of webinars on climate change in April 2021 covering a variety of themes related to decarbonised society. Consisting of two tracks, the Climate Change Track and Carbon Market Track, the webinar series has been well received with IGES researchers providing comprehensible and straightforward interpretations of the latest domestic and international information.

The SMO also actively published Japanese translations of major reports on the environment, such as the executive summary of the "Adaptation Gap Report" issued by the United Nations Environment Programme (UNEP) and the "Asia and the Pacific SDG Progress Report" by the

United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). Four of these translations ranked among the top 25 downloaded publications in FY2020, indicating a significant demand for Japanese translations. The SMO will continue to translate into Japanese key documents that have a strong impact on the global stage to a Japanese audience, as well as IGES research outputs.

Increased Domestic and International Media Coverage

In FY2020, IGES's media visibility rose with an increase in the number of articles published on the institute's website as a result of support and encouragement provided to each research unit, ongoing organisation of press seminars, and proactive development and access to external media opportunities. There was a marked increase in media coverage of IGES in the areas of decarbonisation and renewable energy.

Website Access

With the complete renewal of the website in FY2019, there has been an increase in the number of landing pages allowing users to access a variety of information, improved performance of page search functions, and enhanced web content. The website is performing well, reaching an average of 90,639 page views (PV) per month in FY2020 up from a monthly average of 69,507 PV in FY2019 and exceeding one million PV annually. The regular publication of the IGES e-newsletter and a growing audience on social media has contributed to increased traffic to the website through these channels. There was a marked rise in the number

of publications downloaded, from an average of 49,693 per month in FY2019 to 57,631 per month in FY2020.

Overall Coordination of Impact Accountability Efforts

At the beginning of FY2020, the SMO held a series of meetings with research units to collect potentially impactful cases, and subsequently, 37 cases were identified at the end of the fiscal year through monitoring and review meetings with each research unit. In the process of monitoring and reviewing these impactful cases, the SMO has collected information over the past fiscal year from the World Resources Institute (WRI), the Stockholm Environment Institute (SEI), and the International Institute for Sustainable Development (IISD) and has used the results of the information gathered to improve IGES's internal system.

Coordination of the President's Awards

The IGES President's Awards were established in FY2018 by the generous contribution of President Takeuchi, with the purpose of promoting the creation of outstanding publications and impact cases and research activities. In FY2020, six impact cases out of 37 were shortlisted as finalists of the Mountain View Award (see p.4-5 for details about six particularly exceptional cases), and five publications were selected as finalists for the Ocean Breeze Award for best publication (see p.48 for the list).

Candidates for the Ocean Breeze Award for Best Publication

- Policy Report "Waste Management during the COVID-19 Pandemic: From Response to Recovery" [Award winner]
- Research Report "State of the Voluntary Local Reviews 2021: From Reporting to Action"
- Peer-reviewed Article "Current Situation and Key Challenges on the Use of Single-use Plastic in Hanoi" (Waste Management)
- Peer-reviewed Article "Enhancing Synergies in Nature's Contributions to People in Socio-ecological Production Landscapes and Seascapes: Lessons Learnt from Ten Site-based Projects in Biodiversity Hotspots" (Sustainability Science)
- Peer-reviewed Article "Spatial Characterization of Non-material Values across Multiple Coastal Production Landscapes in the Indian Sundarban Delta" (Sustainability Science)

The Twelfth International Forum for Sustainable Asia and the Pacific (ISAP2020)

The International Forum for Sustainable Asia and the Pacific (ISAP) brings together internationally engaged experts, governments, international organisations, businesses and NGO representatives to engage in discussions on sustainable development from the viewpoint of the Asia-Pacific region.

Held online in November 2020, ISAP2020 discussed the potential of linking recovery from the COVID-19 pandemic to the creation of sustainable, resilient and inclusive societies under the theme, "Just Transitions Toward Sustainable Societies in Asia and the Pacific: Building Forward Better for Our Future Beyond COVID-19". In addition, the use of online tools facilitated discussions among a diverse set of stakeholders with a wider range of participation.

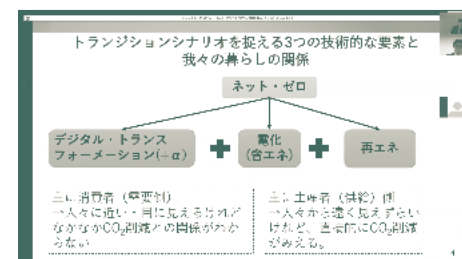


Contributions to Local Communities

IGES introduced its research activities at lectures and seminars held for the local community and provided easy-to-understand commentary on global environmental issues, such as climate change, microplastics, and the Sustainable Development Goals (SDGs). IGES also held lectures at local high school and universities to provide support for integrated environmental studies and higher education in Kanagawa Prefecture.

Main Lectures by IGES Researchers

2020		
July to March 2021	Lectures on environmental studies	Kanagawa Institute of Technology (Atsugi City)
25 September	Lecture on SDGs background and summary	Yokohama City University (Yokohama City)
3 October	Nature observation meeting on satoyama plants in autumn	Maioka Furusato Village (Yokohama City) *provided information materials only
8 November	Hayama Community Development Club launching pre-event on microplastics	Hayama Community Development Club (Hayama Town, online)
2021		
4 February	Seminar on decarbonised society by 2050 (jointly organised by Kanagawa Prefecture and IGES)	(online)
April to March 2022	Lectures on economic development as well as globalisation and regional economic integration	Yokohama National University (Yokohama City)
24 April	Nature observation meeting on satoyama plants in spring	Segami Shimin-no-mori (Yokohama City) *provided information materials only
29 May and 12 June	Nature observation meetings on wildlife on the seashore	Mitsuishi Kaigan (Manazuru Town) *provided information materials only
25 June	Lecture on biodiversity for students in the Learning Activity Consortium for Kanagawa Prefectural High-Schools	Kanagawa Prefectural Fujisawa Nishi Senior High School (Fujisawa City)



Online seminar on decarbonised society by 2050



Lecture on biodiversity for high school students (Fujisawa Nishi Senior High School)



Appendix



Financial Statements (FY2020)

Balance Sheet (Summary)

Unit: 1,000 yen

ASSETS	5,097,536	LIABILITIES	1,166,383
CURRENT ASSETS	1,411,977	CURRENT LIABILITIES	779,907
NON-CURRENT ASSETS	3,685,559	NON-CURRENT LIABILITIES	386,476
(ASSETS FOR BASIC FUNDS)	(250,000)		
(RESTRICTED ASSETS)	(3,268,688)	NET ASSETS	3,931,153
(OTHER NON-CURRENT ASSETS)	(166,871)	RESTRICTED NET ASSETS	2,556,506
		UNRESTRICTED NET ASSETS	1,374,647

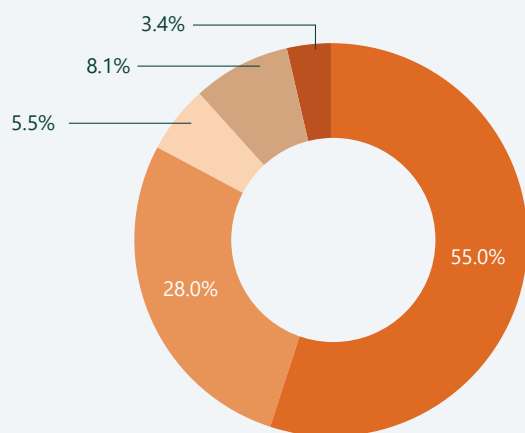
Statement of Activities (All IGES)

Unit: 1,000 yen

		Accounting for Project for public interest purpose				Incorporated accounts	FY2020 Total	FY2019 Total
		Strategic Research *1	IPCC/TSU	APN	JISE			
I Changes in unrestricted net assets								
Operating activities	Revenues and gains	2,313,488	126,437	260,552	54,332	243,601	2,971,070*2	3,516,634
	Expenses and losses	2,332,507	126,437	237,219	54,332	243,601	2,966,756*2	3,573,107
Non-operating activities	Revenues from non-operating	239	0	0	0	0	239	599
	Expenses and losses from non-operating	0	0	0	0	0	0	0
II Changes in restricted net assets								
Total changes in restricted net assets		4,443	68,943	0	△5,897	0	67,489	△25,302
Net assets at end of year		1,109,354	217,820	286,958	2,237,670	79,351	3,931,153	3,859,112

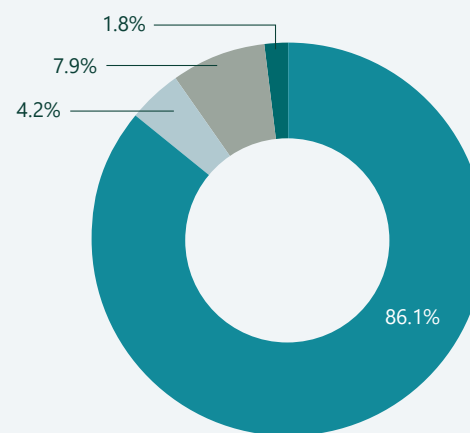
*1 For IGES research activities and dissemination of research outcomes *2 Including internal transactions

Contents of revenues and gain



	Unit: 1,000 Yen
Contract revenue	1,634,622
Contribution*1	833,146
Grants	162,817
Subsidies for office lease	239,462
Income and others	101,023
Total	2,971,070

Expenses and losses



	Unit: 1,000 Yen
Strategic research*2	2,576,108
IPCC/TSU	126,437
APN	237,219
JISE	54,332
<Internal transactions>	△27,340
Total	2,966,756

*1 Including contribution for IPBES-TSU *2 Including incorporated accounts

About IGES

Background

January 1995: Establishment of IGES recommended by the Japanese Prime Minister's Advisory Group on the Global Environment in the Twenty-First Century.

April 1996: Final report on the proposed functions, organisational structure and other aspects of IGES issued by the Discussion Group on Comprehensive Environmental Studies and Education, former Environment Agency of Japan.

March 1998: Establishment of IGES

April 2012: Transition to a public-interest incorporated foundation

Personnel (As of 30 June 2021)

	Number of Staff	Non-Japanese Staff*
Strategic Research	151	45
Projects for Public Interest other than Strategic Research	22	8
General Administration	20	1
Total	193	54

* Out of total staff for each category

IGES Headquarters and Offices

● Headquarters

2108-11, Kamiyamaguchi, Hayama, Kanagawa, 240-0115, Japan
Tel: +81-46-855-3700 Fax: +81-46-855-3709
E-mail: iges@iges.or.jp URL: <http://www.iges.or.jp/>

● Tokyo Sustainability Forum

Shinbashi SY Bldg. 4F, 1-14-2, Nishi-shinbashi, Minato-ku, Tokyo, 105-0003, Japan
Tel: +81-3-3595-1081 Fax: +81-3-3595-1084

● Kansai Research Centre

East Bldg. 5F, Disaster Reduction and Human Renovation Institution, 1-5-2, Wakinohama-kaigandori, Chuo-ku, Kobe, Hyogo, 651-0073, Japan
Tel: +81-78-262-6634 Fax: +81-78-262-6635

● Kitakyushu Urban Centre

International Village Center 3F, 1-1-1, Hirano, Yahatahigashi-ku, Kitakyushu, Fukuoka, 805-0062, Japan
Tel: +81-93-681-1563 Fax: +81-93-681-1564

● Beijing Office (IGES Sino-Japan Cooperation Project Office)

Room No. 1114, 11F, Sino-Japan Friendship Center for Environmental Protection, No. 1 Yuhuinanlu, Chaoyang District, Beijing, 100029, China
E-mail: beijing-office@iges.or.jp

● Regional Centre in Bangkok

604 SG Tower 6F, 161/1 Soi Mahadlek Luang 3, Rajdamri Road, Patumwan, Bangkok, 10330, Thailand Tel: +66-2-651-8794, 8795, 8797, 8799 Fax: +66-2-651-8798

● IPCC TFI Technical Support Unit (TSU)

2108-11, Kamiyamaguchi, Hayama, Kanagawa, 240-0115, Japan
Tel: +81-46-855-3750 Fax: +81-46-855-3808

● Asia-Pacific Network for Global Change Research (APN) Secretariat

East Bldg. 4F, Disaster Reduction and Human Renovation Institution, 1-5-2, Wakinohama-kaigandori, Chuo-ku, Kobe, Hyogo, 651-0073, Japan
Tel: +81-78-230-8017 Fax: +81-78-230-8018

● Japanese Center for International Studies in Ecology (JISE)

Shinyokohama Daiichi Bldg. 3F, 2-14-27, Shinyokohama, Kohoku-ku, Yokohama, Kanagawa, 222-0033, Japan Tel: +81-45-548-6270 Fax: +81-45-472-8810

● Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Technical Support Unit (TSU)

Shinbashi SY Bldg. 4F, 1-14-2, Nishi-shinbashi, Minato-ku, Tokyo, 105-0003, Japan
Tel: +81-3-3595-1081 Fax: +81-3-3595-1084

Officers and Others (As of 1 October 2021)

Trustees

Prof. Xuemei Bai	Distinguished Professor, Urban Environment at Fenner School of Environment and Society, Australian National University
Prof. MIMURA Nobuo	Specially Appointed Professor, Global and Local Environment Co-creation Institute(GLEC), Ibaraki University
Dr. Wijarn Simachaya	President, Thailand Environment Institute (TEI)
Mr. SUZUKI Masaki	Chairman, AEON Financial Service Co.,Ltd.
Prof. TAKAMURA Yukari	Professor, Institute for Future Initiatives (IFI), The University of Tokyo
Mr. Peter James Wooders	Senior Director, Energy, International Institute for Sustainable Development (IISD)
Ms. YOSHITAKA Mari	Principal Sustainability Strategist, Deputy General Manager of Corporate Planning Dept. Mitsubishi UFJ Research and Consulting Co., Ltd.

Directors

Prof. TAKEUCHI Kazuhiko	President, Institute for Global Environmental Strategies Project Professor, Institute for Future Initiatives (IFI), The University of Tokyo
Mr. TAKAHASHI Yasuo	Executive Director, Institute for Global Environmental Strategies
Mr. MIYOSHI Nobutoshi	Managing Director, Institute for Global Environmental Strategies
Mr. FUTAMIYA Masaya	Director-Chairman, Sompo Japan Insurance Inc.
Prof. ISHII Naoko	Executive Vice-President, Professor at the Institute for Future Initiatives (IFI), Director for the Center for Global Commons, The University of Tokyo
Prof. OTSUKA Tadashi	Professor, Law School and Faculty of Law, Waseda University
Prof. Dr. Miranda A. Schreurs	Professor, Chair of Environmental and Climate Policy, Bavarian School of Public Policy, Technical University of Munich, Dean of Studies, TUM School of Governance

Auditors

Mr. HASEGAWA Ken	Lawyer
------------------	--------

Mr. YASUDA Hiroyuki Certified public accountant

Honorary Advisors

Mr. KAIFU Toshiki Former Prime Minister; Advisor, Global Environmental Action (GEA)
Ms. KAWAGUCHI Yoriko Visiting Professor, Musashino University; Fellow, Institute for Global Affairs; Former Member of the House of Councilors; Former Minister of Foreign Affairs; Former Minister of the Environment, Japan
Prof. KOMIYAMA Hiroshi Chairman of the Institute, Mitsubishi Research Institute, Inc; President Emeritus, the University of Tokyo
Mr. MURAYAMA Tomiichi Former Prime Minister; Senior Advisor, Global Environmental Action (GEA)
Dr. Emil Salim Chairman, Advisory Council to the President of Indonesia; Former State Minister for Population and Environment, Indonesia
Dr. Stephan Schmidheiny Honorary Chairman, Executive Committee, World Business Council for Sustainable Development
Mr. Achim Steiner Former Executive Director, United Nations Environment Programme
Dr. M. S. Swaminathan Founder Chairman and Chief Mentor, M.S. Swaminathan Research Foundation; UNESCO Chair in Ecotechnology

Counsellors

Mr. AKAO Nobutoshi Former Japanese Ambassador to Thailand
Mr. Lucas Assunção Head of Trade, Environment and Sustainable Development Branch, United Nations Conference on Trade and Development (UNCTAD)
Mr. BAN Tsuguo Chairman of the Board of Directors, Japan Forest Recreation Association
Dr. FUGONO Nobuyoshi Advisor, Advanced Telecommunications Research Institute International
Mr. FUKUKAWA Shinji Advisor, Global Industrial and Social Progress Research Institute
Dr. William Glanville Former Vice President, International Institute for Sustainable Development (IISD)
Prof. HAMANAKA Hironori Former President of the Institute for Global Environmental Strategies
Prof. HIRONO Ryokichi Professor Emeritus, Seikei University
Mr. ISHIZAKA Masami Former Chairman of the Board of Directors, Okura Zaimu Kyokai
Mr. KOBAYASHI Etsuo Advisor, Hyogo Environmental Advancement Association
Prof. MORISHIMA Akio Former President of the Institute for Global Environmental Strategies
Dr. NISHIOKA Shuzo Former Executive Director of the National Institute for Environmental Studies
Mr. OBA Tomomitsu Former President, Japan Center for International Finance
Mr. OKADA Yasuhiko Attorney at Law, Partner, Kitahama Partners (Tokyo Office)
Mr. OKAJIMA Shigeyuki Vice Chairman, Japan Environmental Education Forum
Mr. SASAKI Masamine Former President, The Japanese Association for Conservation of Architectural Monuments
Dr. Monthip Sriratanatabucanon Director, Climate Change Research Center, National Research Council of Thailand (NRCT)

(in alphabetical order)

Signatory Organisations and Institutions of the Charter for the Establishment of IGES

Total: 48

National Administrative Organisations (16)

Department of the Environment, Water, Heritage and the Arts (Australia)
Ministry of Environment (Cambodia)
Environment Canada (Canada)

Ministry of Environmental Protection (China)
Ministry of Environment and Forests (India)
State Ministry of Environment (Indonesia)
Ministry of the Environment (Japan)
Ministry of Environment (Korea)
Water Resources and Environment Administration (Lao P.D.R.)
Ministry of Natural Resources and Environment (Malaysia)
Ministry of Nature and the Environment (Mongolia)
Ministry of Environment, Science and Technology (Nepal)
Ministry for the Environment (New Zealand)
Department of Environment and Natural Resources (The Philippines)
Ministry of Natural Resources and Environment (Thailand)
Ministry of Natural Resources and Environment (Viet Nam)

International Organisations (6)

International Tropical Timber Organization
United Nations Centre for Regional Development
United Nations Economic and Social Commission for Asia and the Pacific
United Nations Environment Programme
United Nations Institute for Training and Research
United Nations University Institute for the Advanced Study of Sustainability

Research and Academic Institutions (26)

Asia-Pacific Centre for Environmental Law (Singapore)
Center for International Environmental Law (USA)
Earth Council (Costa Rica)
Global Industrial and Social Progress Research Institute (Japan)
Indira Gandhi Institute of Development Research (India)
Institute of Development Studies, University of Sussex (UK)
Institute of Southeast Asian Studies (Singapore)
Institute of Strategic and International Studies (Malaysia)
International Academy of the Environment (Switzerland)
International Global Change Institute, Waikato University (New Zealand)
International Institute for Applied Systems Analysis (Austria)
International Institute for Environment and Development (UK)
International Institute for Sustainable Development (Canada)
Korea Energy Economics Institute (Korea)
Korea Environment Institute (Korea)
National Institute for Environmental Studies (Japan)
Potsdam Institute for Climate Impact Research (Germany)
Sino-Japan Friendship Center for Environmental Protection (China)
Stockholm Environment Institute (Sweden)
Thailand Development Research Institute Foundation (Thailand)
Thailand Environment Institute (Thailand)
The Energy and Resources Institute (India)
VTT Technical Research Centre of Finland (Finland)
World Resources Institute (USA)
Worldwatch Institute (USA)
Wuppertal Institute for Climate, Environment and Energy (Germany)



IGES Annual Report 2020

Published by Institute for Global Environmental Strategies

© 2021 Institute for Global Environmental Strategies. All rights reserved.

Institute for Global Environmental Strategies

2108-11, Kamiyamaguchi, Hayama, Kanagawa, 240-0115, Japan

Tel: +81-46-855-3700 Fax: +81-46-855-3709

E-mail: iges@iges.or.jp URL: <http://www.iges.or.jp/>

Tokyo Sustainability Forum

Shinbashi SY Bldg. 4F, 1-14-2, Nishi-shinbashi, Minato-ku, Tokyo, 105-0003, Japan

Tel: +81-3-3595-1081 Fax: +81-3-3595-1084

Kansai Research Centre

East Bldg. 5F, Disaster Reduction and Human Renovation Institution, 1-5-2,

Wakinohama-kaigandori, Chuo-ku, Kobe, Hyogo, 651-0073, Japan

Tel: +81-78-262-6634 Fax: +81-78-262-6635

Kitakyushu Urban Centre

International Village Center 3F, 1-1-1, Hirano,

Yahatahigashi-ku, Kitakyushu, Fukuoka, 805-0062, Japan

Tel: +81-93-681-1563 Fax: +81-93-681-1564

Beijing Office

[IGES Sino-Japan Cooperation Project Office]

Room No. 1114, 11F, Sino-Japan Friendship Center for Environmental Protection,

No. 1 Yuhuinanlu, Chaoyang District, Beijing, 100029, China

E-mail: beijing-office@iges.or.jp

Regional Centre in Bangkok

604 SG Tower 6F, 161/1 Soi Mahadlek Luang 3, Rajdamri Road, Patumwan,

Bangkok, 10330, Thailand

Tel: +66-2-651-8794, 8795, 8797, 8799 Fax: +66-2-651-8798

IPCC TFI Technical Support Unit [TSU]

2108-11, Kamiyamaguchi, Hayama, Kanagawa, 240-0115, Japan

Tel: +81-46-855-3750 Fax: +81-46-855-3808

Asia-Pacific Network for Global Change Research [APN] Secretariat

East Bldg. 4F, Disaster Reduction and Human Renovation Institution, 1-5-2,

Wakinohama-kaigandori, Chuo-ku, Kobe, Hyogo, 651-0073, Japan

Tel: +81-78-230-8017 Fax: +81-78-230-8018

Japanese Center for International Studies in Ecology [JISE]

Shinyokohama Daiichi Bldg. 3F, 2-14-27, Shinyokohama, Kohoku-ku,

Yokohama, Kanagawa, 222-0033, Japan

Tel: +81-45-548-6270 Fax: +81-45-472-8810

Intergovernmental Science-Policy Platform on

Biodiversity and Ecosystem Services [IPBES] Technical Support Unit [TSU]

Shinbashi SY Bldg. 4F, 1-14-2, Nishi-shinbashi, Minato-ku, Tokyo, 105-0003, Japan

Tel: +81-3-3595-1081 Fax: +81-3-3595-1084